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A COMPARATIVE ANALYSIS OF HISTORICAL AND MODERN
BLOCKADING OF MAJOR TRANSPORTATION
PROGRAMS IN VIRGINIA

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CHAPTER I

INTRODUCTION

The "Fall Line Blockade" of rail routes to Hampton Roads prior to 1860 has been blamed as a major obstacle to the development of the great natural harbor of Hampton Roads. In 1967 the Virginia legislature is faced with a question, the ramifications of which may have an equally drastic effect upon the long-range success of Virginia's world trade. The question is whether or not to deepen the James River to Richmond at a cost of about \$40 million in federal funds.

"Hampton Roads. . . with its fifty miles of shoreline . . . possesses one of the largest natural harbors in the world."¹ The harbor is double landlocked by an outer entrance from the Atlantic Ocean into Chesapeake Bay through the Virginia Capes (Cape Henry and Cape Charles, see Figure 1). Chesapeake Bay extends two hundred miles north, varying from four to forty miles in width. To reach the Hampton Roads piers ships enter the southern end of the Bay at the Capes, continue west-northwesterly for twelve miles, and pass between Old Point Comfort on the north and Willoughby Spit on the south into Hampton Roads. Inside the harbor the channel divides, one branch extending westward to a deep water

¹Major W. R. Wheeler, The Road to Victory, Vol. I. (New Haven, Conn.: Yale University Press, 1946), p. 1.

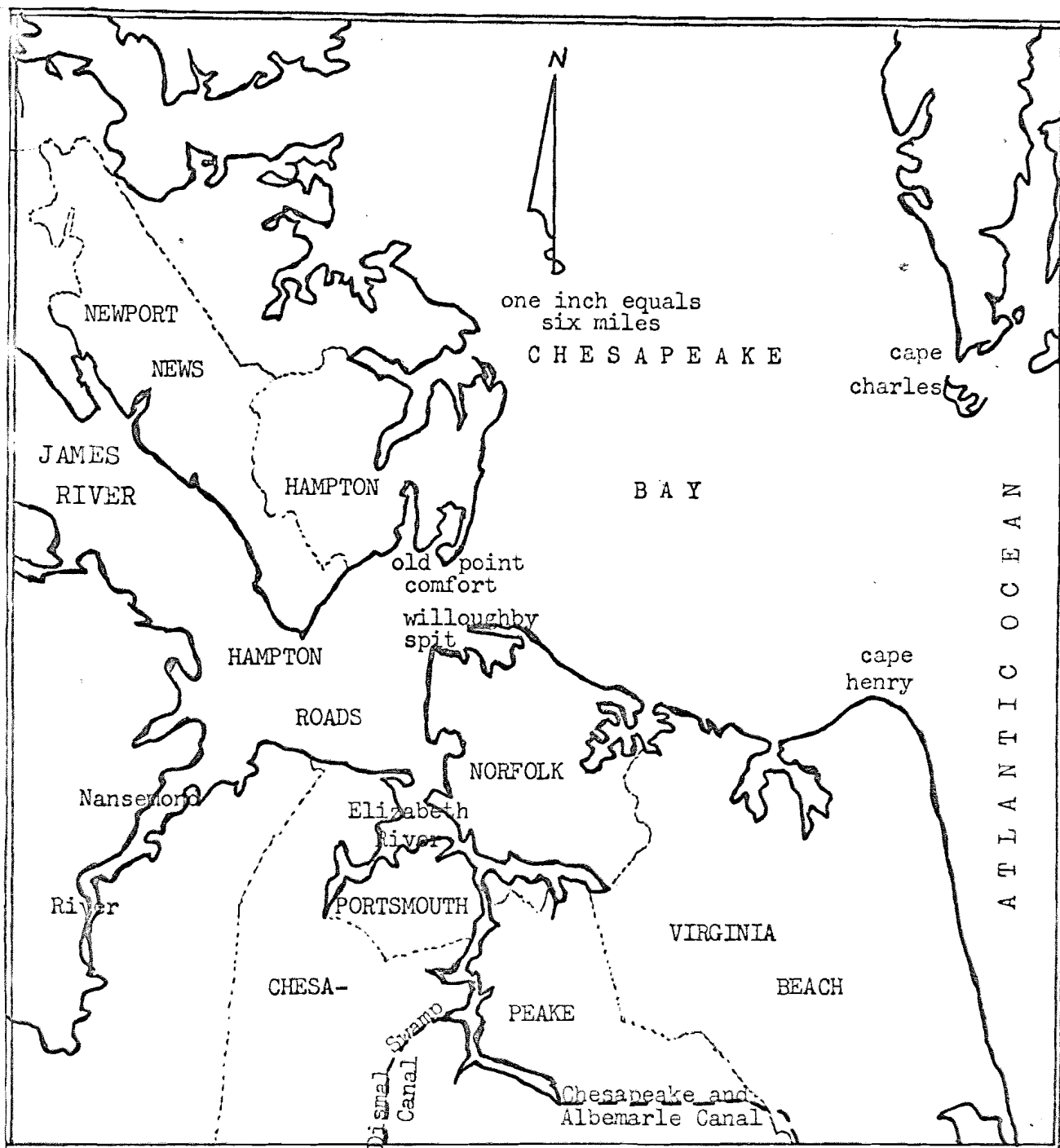


Figure 1. Hampton Roads, Virginia, and environs.

area off the port of Newport News, the other southward into the Elizabeth River. The latter channel, connecting channels and deep water areas, and the cities of Norfolk and Portsmouth comprise the Port of Norfolk, as referred to here. Three Virginia rivers (James, Nansemond, and Elizabeth) and their tributaries flow into Chesapeake Bay via Hampton Roads. The entire complex of cities and the harbor within their boundaries are included in the general definition of Hampton Roads.¹

The preceding brief description is that of an area which many writers believe to be the greatest natural harbor in the world. "Hampton Roads . . . [is] one of the finest land-locked harbors in the world";² "Hampton Roads . . . is the world's foremost coal seaport";³ "Hampton Roads, the finest natural harbor . . . ";⁴ ". . . This port . . . [is] endowed with a matchless harbor."⁵ Relative advantages include the fact that Hampton Roads is ice free year around; is nearly two hundred miles nearer the Atlantic than Baltimore (near the

¹Ibid., pp. 1, 2.

²Deep Water (New York: New York Marine News Company, Inc., 1952), p. 91.

³Ibid., p. 92.

⁴Elsie A. Stegman, Hampton Roads Guide (Norfolk: Guide Book Company, 1925), p. 91.

⁵E. O. Jewell, A Factual Study of the Port of Norfolk (Norfolk: Norfolk Port Authority, 1950), p. 126.

inland end of Chesapeake Bay); and has generally lower costs of handling import and export traffic than other Atlantic seaports. This latter fact is based on the nearly universal availability of direct rail-to-ship and ship-to-rail handling of cargoes.¹ In addition " . . . freight rate differentials are lower than those of New York, Philadelphia, and Boston."² Hampton Roads' ship repair facilities "are not excelled by any other port in the country."³ Nine railroads serving Norfolk and twenty-one states have a combined mileage of over 37,000 miles, in excess of sixteen per cent of the total United States mileage.⁴ Hampton Roads has desirable general characteristics (depths, restrictions, facilities, etc.) which compare favorably with or exceed those of other Atlantic ports with harbors classed as "large."⁵ (See Table I.)

Has Hampton Roads, with its physical and geographical advantages, been successful at evolving into the greatest port complex compared to other Atlantic competitors? Depending upon how one interprets statistics, Hampton Roads has nearly succeeded in some respects and failed in others. Table II indicates Hampton Roads has realized a degree of steady growth in foreign water-borne commerce. But a deeper

¹Stegman, op. cit., pp. 89, 90, 97.

²Ibid., p. 97. Confirmed in Jewell, op. cit., Introductory letter.

³Stegman, op. cit., p. 100.

⁴Jewell, op. cit., p. 126.

⁵World Port Index, 1963 (third edition; Washington: U.S. Government Printing Office, publication 150, 1963), pp. 17, 18.

TABLE I

GENERAL CHARACTERISTICS OF MAJOR ATLANTIC PORTS
WITH HARBORS CLASSED AS "LARGE"
AND OF RICHMOND, VIRGINIA
(World Port Index, 1963)

Port Characteristic	Norfolk	Newport News	Hampton Roads (cumulative)	New York	Baltimore	Philadelphia	Richmond
Size.	Large	Medium	Large	Large	Large	Large	Very Small
Type Harbor	Natural	Natural	Natural	Natural	Natural	Natural	Natural
	River	Coastal		River	River	River	River
Shelter Afforded . . .	Excellent	Good	Excellent	Excellent	Excellent	Good	Good
Entrance Restrictions .	none	none	none	none	none	none	none
Channel Depth (feet). .	40+(sic**)	40+(sic**)	40+(sic**)	40+	35-40	35-40	15-20
Anchorage Depth(least).	20-25	20-25	20-25	40+	25-30	35-40	15-20
Wharf Depth(greatest). .	35-40	35-40	35-40	40+	35-40	35-40	15-20
Tide (feet)	3	3	3	4	1	6	0
Pilotage	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory
Provisions	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful
Water	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful
Fuel Oil	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful
Diesel Oil	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	none
Coal	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	Plentiful	none
Repair Facilities . . .	Major	Major	Major	Major	Major	Major	none
Drydock***.	Large	Large	Large	Large	Large	Large	No Facilities

** Deepened to 45 feet in 1966.

*** "Large" indicates over 600 feet long.

TABLE II

FOREIGN WATER-BORNE COMMERCE THROUGH PRINCIPAL ATLANTIC COAST PORTS
1961-1965(inclusive)
(The Ports of Greater Hampton Roads Annual, 1967)

Port Class of Trade	1965		1964		1963		1962		1961	
	Tons (x 1000)	Value (millions)	Tons (x 1000)	Value (millions)	Tons (x 1000)	Value (millions)	Tons (x 1000)	Value (millions)	Tons (x 1000)	Value (millions)
Hampton Roads:										
Imports	5,953	\$ 347	5,888	\$ 327	5,543	\$ 298	5,583	\$ 270	5,998	\$ 276
Exports	35,056	954	33,708	1,004	32,847	915	28,092	810	25,642	792
Total	41,009	1,301	39,596	1,331	38,390	1,213	33,675	1,080	31,640	1,068
New York:										
Imports	47,536	5,533	41,351	5,098	39,999	4,773	38,545	4,808	34,667	4,344
Exports	6,801	5,940	7,731	6,045	6,918	5,292	7,104	5,308	6,950	5,130
Total	54,337	11,473	49,082	11,143	46,917	10,065	45,649	10,116	41,617	9,474
Baltimore:										
Imports	19,720	758	18,062	722	17,423	695	18,265	652	15,185	630
Exports	5,886	684	7,178	714	6,843	702	5,190	580	4,542	593
Total	25,606	1,442	25,240	1,436	24,266	1,397	23,455	1,232	19,727	1,223
Philadelphia:										
Imports	19,983	880	17,713	787	18,051	779	20,903	742	16,585	697
Exports	2,867	455	3,813	472	5,210	444	3,207	366	2,944	356
Total	22,058	1,335	21,526	1,259	23,261	1,223	24,110	1,108	19,529	1,053
Boston:										
Imports	6,319	566	6,146	230	5,808	502	6,301	494	6,435	454
Exports	598	93	1,011	121	810	94	610	88	1,025	127
Total	6,917	659	7,157	351	6,618	596	6,911	582	7,460	581
Charleston:										
Imports	1,404	216	1,521	182	1,529	179	1,320	179	1,401	147
Exports	536	117	610	147	493	112	392	112	479	123
Total	1,940	333	2,131	329	2,022	291	1,712	291	1,880	270

analysis of the makeup of the data in terms of exports versus imports, tons versus dollars, and the nature of the materials making up those tons (see Table III) presents an entirely different outlook.

For example, of Hampton Roads' 41 million tons of foreign commerce in 1965, 35 million tons were exports; 32 million tons of these exports were coal. Further, other bulky material made up a majority of the remaining three million tons of exports and nine million tons of the cumulative trade. In comparison, no coal was exported by New York. Trade volume in terms of dollars presents another significant key to the differences between New York trade (nearly \$11.5 billion) and Hampton Roads trade (about \$1.3 billion). Even in the absence of a breakdown of commodities included in New York trade, the tonnage-value comparison would indicate a greater economic significance of its trade picture as compared with that of Hampton Roads. Though it is not the purpose here to deeply evaluate the virtues of a \$1.3 billion trade value made up nearly 77 per cent of coal compared with an \$11.5 billion trade value including no coal, it can be assumed that the combined trade of New York consisted of generally less bulky, more valuable commodities. It is also safe to conclude, for the purposes of this summary, that the trade of the latter plays a tremendously greater role in the economy than the very unbalanced trade carried through

TABLE III
IMPORTS AND EXPORTS THROUGH THE PORT OF HAMPTON ROADS
BY CLASS OF COMMODITY
1965
(The Ports of Hampton Roads Annual, 1967)
(In net tons of 2000 pounds)

Class of Commodity	Exports	Imports	Total
Food and Live Animals	1,756,533	71,774	1,830,307
Beverages and Tobacco	175,930	59,735	235,665
Inedible Crude Materials			
Except Fuels	626,727	1,287,128	1,913,855
Mineral Fuels, Related			
Products, Except			
Bituminous Coal	20,771	3,994,535**	4,015,306
Bituminous Coal	31,936,689	0	31,936,689
Animal, Vegetable Oils			
and Fats	59,035	14	59,049
Chemicals (primarily			
related to fertilizers) . .	269,543	233,163	502,706
Light Manufactured Goods . .	176,443	273,870	450,313
Machinery and Transport			
Equipment	33,954	33,054	67,008
Nonclassified Commodities			
and Transactions	139	0	139
Total	35,055,764	5,953,273	41,009,037

** Comprising mainly fuel oils (2,114,738 tons)
and crude petroleum (1,777,692 tons).

Hampton Roads.¹

Before proceeding, other observations should not be overlooked. That is, comparison of 1965 exports (\$5.9 billion) and imports (\$5.5 billion) for the port of New York indicates a near-balance of trade value. Comparatively, for Hampton Roads exports (\$.95 billion) are nearly three times imports (\$.35 billion) in terms of value. This emphasizes an extreme reliance by Hampton Roads upon one commodity flowing in a single direction for continuation of trade level. A further comparison in terms of tons reveals that for Hampton Roads exports are approximately six times imports, while the position of New York is reversed with nearly eight times as much tonnage in imports as in exports. This suggests that empty hulls are entering the one harbor and leaving the other. Comparatively, for Hampton Roads this is true not only in terms of tonnages, but also in terms of dollar value; perhaps the long-range stability of this trade is subject to doubt.²

Finally, similar import-export comparisons for Baltimore, Boston, and Philadelphia show that in terms of both dollars and tons, all are heavily favored by imports in excess of exports, more like New York than Hampton Roads. But in the cases of these ports, the lack of balance is more extreme for

¹The Port of Hampton Roads Annual, 1967 (Norfolk: Hampton Roads Maritime Association, 1966), pp. 13-10. (data only).

²Ibid., pp. 13-23 (data).

Boston in both tonnage and values, comparable to New York for Baltimore in tonnage and value and for Philadelphia in tonnage, and dissimilar to New York for Philadelphia in values, in that the latter indicates a two-to-one ratio between values of imports and exports with a six-to-one ratio in tonnage. All three of these leading Atlantic ports lag both New York and Hampton Roads considerably in tonnage, but only Boston lags Hampton Roads in cumulative trade values.¹

What has been concluded by the above statistical review? It is safe to concede that, in general, Hampton Roads has not become the greatest of ports with this "greatest of harbors." New York exceeds Hampton Roads foreign trade significantly in terms of tonnage and tremendously in terms of values. Hampton Roads greatly leads Philadelphia, Baltimore, and Boston in tonnage, but both Philadelphia and Baltimore are slightly ahead in dollar volume of foreign trade. Excluding coal from these comparisons, tonnage through Hampton Roads, as well, is overwhelmed by these two ports. Based on these facts, it is justifiable to conclude that as a general seaport, Hampton Roads has failed to find its "rightful" place in world commerce; Hampton Roads' trade is based too extremely on the export of one commodity and, therefore, is too unbalanced to declare an unqualified

¹Ibid.

²Ibid.

second-to-New York standing.¹

Having summarized that (1) Hampton Roads contains one of the greatest natural harbors in the world and, therefore, on the Atlantic Coast, and (2) Hampton Roads does not comprise the number one seaport on the Atlantic Coast, nor necessarily the second, why has this port failed to grow to the enviable position held by the Port of New York? Many of the major causes follow:

1. Complete destruction by fire of Norfolk, the original port city, in 1776 (Revolution), and the subsequent delay of reconstruction.²
2. The blocking of the West Indian trade to the United States by Great Britain, combined with the costly repercussions by the U. S. (1815 Embargo Act through 1830's). Hampton Roads had grown to rely heavily upon this trade at the time and had established no great trans-Atlantic trade.
3. The lack of capital to support recovery from the economic sanctions arising from the West Indian and European trade failures. Without capital, foreign purchases could not be made and sponsored during transit (first half of the nineteenth century).

¹This is not to say the present or future contributions of Hampton Roads are to be underestimated; both play a tremendous role in foreign commerce.

²Thomas J. Wertenbaker, Norfolk: Historic Southern Port (second edition by Marvin W. Schlegel. Durham, N. C.: Duke University Press, 1962), p. 73.

³Ibid., pp. 147-148

⁴Ibid., p. 156.

4. The failure of immigration to find a place in the slave-labor market of Virginia forced shippers to sail for Northern manufacturing centers in order to carry their share of the immigrant traffic, considered to be the "frosting" on the profit for the Atlantic crossings (1820-30's).¹
5. The "Fall Line Blockade" of development of railroads to Hampton Roads by inland-oriented politicians (through 1860) and the lack of comprehensive plans for developing Virginia's transportation, particularly plans that would include exploitation of natural seaports.²
6. The great yellow fever epidemic of 1855, which wiped out one third of the population on Hampton Roads' southern shores.³
7. The Civil War, during and after which the Hampton Roads cities were permitted to deteriorate drastically under northern occupation and post-war recovery.⁴

This paper discusses only one of these factors: The Fall Line Blockade. It is admitted that other factors,

¹Ibid., pp. 156-157.

²Ibid., pp. 166-187.

³H. W. Burton, History of Norfolk, Virginia (Norfolk: Virginian Press, 1877), p. 23.

⁴Wertebaker, op. cit., p. 247.

beyond those listed, influenced the relative growth of Virginia's foreign water-borne trade; this is a partial list. It could also be verified that of those deterrents listed, others were of greater influence than the Blockade. However, because of the timeliness of the subject relative to a current question before the state government, a question which might suggest that a disappointing phase of Virginia history is soon to be repeated, Chapter II deals with the historical significance of the "Blockade" concept and the validity of its existence. This review investigates the question: Was the Fall Line Blockade a case of one segment of the state seeking to accomplish local aims at the long-range expense of progress for the entire state by neglect of Hampton Roads, the natural seaport?

The current subject, to be related in Chapter III, is that involving the dredging of the James River channel to deepen it from 25 feet to 35 feet between Hampton Roads and Richmond. Chapter III presents the James River Project, arguments for and against it, and a summary of the ramifications the proposal presents. A questionnaire survey (see Appendix for sample) was employed to supplement the study of coverage by periodicals. The survey, mentioning the Fall Line Blockade, was designed to plant additional food for thought in the minds of those solicited for the stimulation of answers to relative questions.

Chapter IV summarizes by presenting the parallelisms between the two questions. It is the purpose here to deter-

mine the extent to which a correlation prevails between the Fall Line Blockade of the nineteenth century and the proposed \$40 million project to deepen the James for development along its banks and for the exploitation of Richmond as a major Atlantic seaport. This final chapter, then, asks for today this question: Is the proposed James River Project a case of one segment of the state seeking to accomplish local aims at the long-range expense of progress for the entire state by neglect of Hampton Roads, the natural seaport?

CHAPTER II

THE RELEVANCE OF THE FALL LINE BLOCKADE

Thomas J. Wertenbaker presented a vivid description of the Fall Line Blockade concept in his comprehensive historical book, Norfolk: Historic Southern Port. Quoting an early Norfolk newspaper, he supported the urgency of the subject of this study: "Without foreign commerce Norfolk must dwindle to a village, and Virginia sink to the lowest scale in the Union . . ."¹ In the 1830's Hampton Roads did not rely to great extent upon a military populace, as today, but the importance of maintaining and improving the foreign trade role was no less then than it is today.

The decade of the 1830's perhaps was the most significant to the long-range outcome of Virginia's progress in commerce. While many efforts prior to that time were unfortunate, all were basically justified because of the lack of alternatives. With the 1830's was seen the beginning of the railroad in America. Had Virginia recognized the opportunity to realize the futility of water routes across the mountains, choosing rail transportation as a solution, the position of the State as first in wealth and population in 1800²

¹Wertenbaker, op. cit., p. 154, citing the Norfolk Beacon, March 13, 1834.

²Dorothy M. Torpey, Hallowed Heritage: The Life of Virginia (Richmond: Whittet and Shepperson, 1961), p. 90.

may not have been lost to more progressive states. Left without a comprehensive "plan"--state or national, " . . . distracted with petty jealousies and local interest . . .,"¹ and determined to hang on to a dream embellished in the early successes of the Erie Canal in New York, "The proud Old Dominion . . . saw one state after another pass her in all that makes for influence and power."²

I. THE GEOGRAPHIC PROBLEM

The geography of Virginia was one of the most diversified in the country. Much of early transportation was influenced by five major topographical regions: (1) The South Atlantic Coastal Plain--Tidewater, ranging from sea level to less than 400 feet in elevation; (2) The Piedmont Plateau--300 to 500 feet elevation in the east to 800 to 1200 feet in the west; (3) The Blue Ridge and Valleys, rising to peaks the highest of which is 5719 feet; (4) The Appalachian Ridge and Valleys, including numerous high, narrow ridges and valleys, most notably the Shenandoah Valley; and (5) The Appalachian Plateau, consisting primarily of rugged terrain.³

The Fall Line, dividing the Piedmont and the Tidewater, was created by the rising of the rock layers of the Piedmont

¹Wertebaker, op. cit., p. 186.

²Ibid., pp. 186, 166.

³Torpey, op. cit., pp. 11-14; and Francis Butler Simkins, Spotswood Hunnicutt, and Sidman P. Poole, Virginia: History, Government, Geography (New York: Charles Scribner's Sons, 1957) pp. 14-16.

above the level of Tidewater. The result was the formation by the rivers of falls and/or rapids, such as above Alexandria on the Potomac, at Fredricksburg on the Rappahannock, at Richmond on the James, and at Petersburg on the Appomattox. The Fall Line, the head of navigation on these rivers, presented a natural site for founding the Fall Line towns as shown in Figure 2. Vessels could go no further, either up or down stream, and had to unload cargoes there.¹

Economic penetration of the interior of the continent had been restricted to fur trade in early America, but the supporting transportation system in this commerce would not move bulk commodities needed for development. The first primary barrier to the west was the Appalachian Mountains, extending 1200 miles from the northern boundary of the country through the state of Virginia deep into the South.² The mountain system was too long to be circumvented; it had to be pierced. Even the potential routes included hundreds of miles of difficult country that had to be made navigable. "A canal half-way through the Appalachians . . . would be inadequate"; the required investments would be immense for an economy in a primitive state of development with scarce capital resources.³

¹Simkins, Hunnicutt, and Poole, op. cit., pp. 13-14.

²Virginia included the present state of West Virginia until 1861, when a split over secession took place.

³John B. Lansing, Transportation and Economic Policy (New York: The Free Press, 1966), pp. 91-93; and Caroline E. MacGill, History of Transportation in the United States before 1860 (Forge Village, Mass.: The Murray Printing Company, n.d., reprinted by Peter Smith, 1948), pp. 262-263.

FALL LINE CITIES

1. Alexandria (Potomac River)
2. Fredricksburg (Rappahannock River)
3. Richmond (James River)
4. Petersburg (Appomatox River)

A. Chesapeake Bay

B. Hampton Roads

— Principal Fall Line Rivers

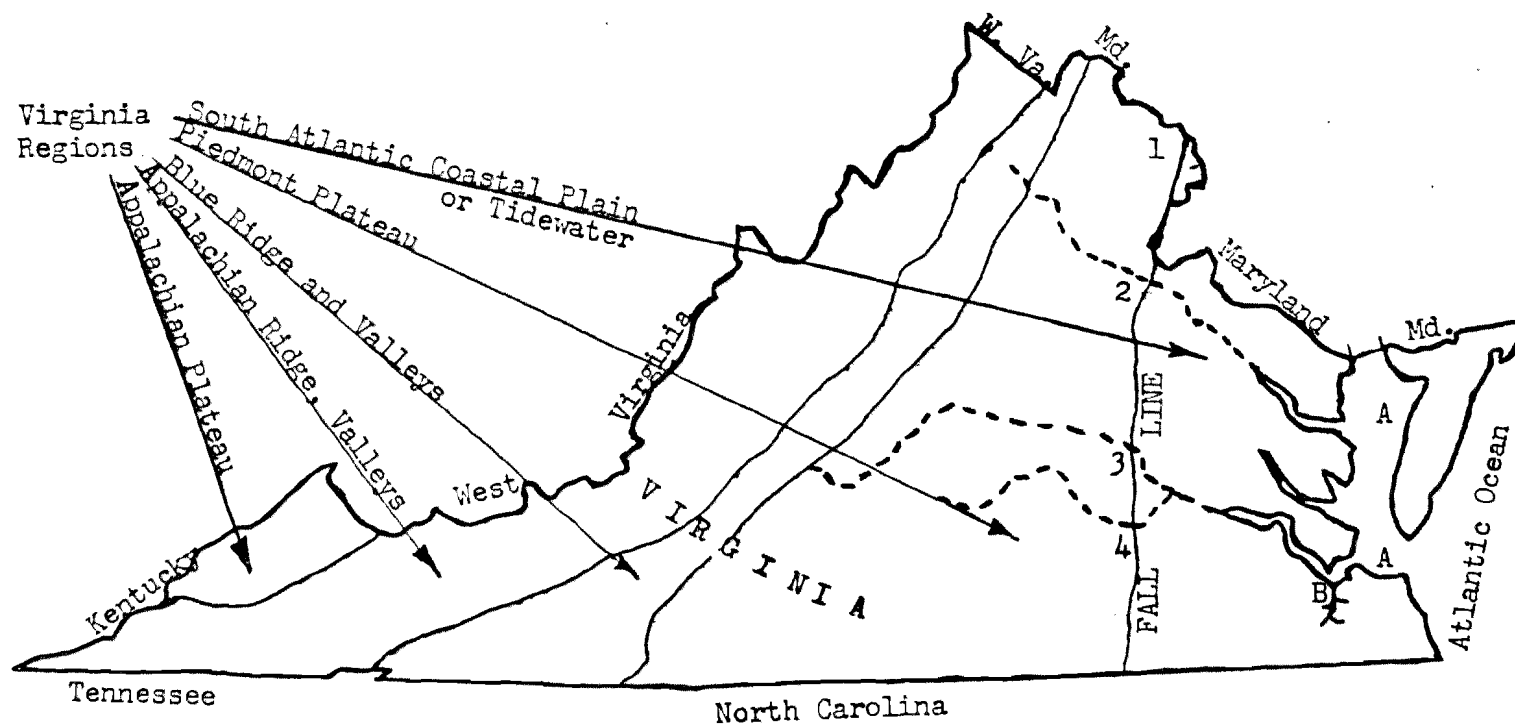


Figure 2. Topographical Regions, Fall Line Rivers, and Fall Line Cities of Virginia (Source: Hallowed Heritage: The Life of Virginia)

II. THE NATIONAL PLAN REJECTED

Many concepts, including "internal improvements," "States' rights," and "sectionalism," played major roles in the development of transportation. Perhaps the most influential of these were the ramifications of efforts for the development of a "national plan" for transportation, federally supported and/or federally directed toward national goals. It was widely understood that total economic benefit derived from a transportation facility would exceed the private revenue from tolls and charges, and a spirit of "public good" carried much of the weight in the promotion of internal improvements.¹ The most common explanation for the lack of progress in internal improvements was the lack of money.² In the early nineteenth century a basic political question was that of the extent to which the national government, rather than the state or local governments, should become involved in developmental and exploitative efforts. A national approach received serious consideration.

The Senate of the United States in 1807 directed Albert Gallatin, Secretary of the Treasury, to prepare a general plan of road, canal, and rail improvements. Gallatin's comprehensive report on roads and canals was submitted in 1808. It remarkably summarized the first artificial water-

¹Ibid., Lansing, pp. 93-95.

²Carter Goodrich, Government Promotion of American Canals and Railroads, 1800-1890 (New York: Columbia University Press, 1960), p. 23.

ways of the future intercoastal waterways system (in part), as well as proposing routes for penetration of the Appalachian Mountain barrier. The latter portion proposed exploitation of the route up the Hudson to Lake Champlain, down the Mohawk to Lakes Ontario and Erie, and development of four pairs of rivers, also crossing the Appalachians: The Allegheny and the Juniata or Susquehanna, the Monongahela and Potomac, the Tennessee and the Savannah or Santee, and the Kanawha and James.¹ The latter of these cut an east-west route through Virginia and consisted of the prime target of Wertenbaker's Fall Line Blockade concept, as will be seen.

Though the federal government did take important steps to assist transportation, particularly in the second half of the nineteenth century, the idea of a comprehensive national plan was never very popular and was abandoned.² Nevertheless, the prime goal in this area prior to mid-century was the assault of the Appalachian Barrier, and amazing resemblances to the proposals of Gallatin were pursued.

The "battle" over the national concept was important, for it reflected the deepest roots of the failures in development of transportation in Virginia. Nationalism in internal improvements was strongly advocated by the West.³ George

¹Lansing, op. cit., pp. 92-93.

²Ibid.

³Now West Virginia

Washington made "tours of inspection" in 1770, 1772, and 1774 to supply himself with facts to show the costs, feasibility, and desirability of a James-Kanawha connection. In 1775 an act was passed in the Virginia legislature to provide for the improvement of both the James and the Potomac rivers.¹ As reported in Ambler's Sectionalism in Virginia from 1776 to 1861, a united vote of the West against the East in the Assembly of 1814-1815 adopted a vast scheme of internal improvements, calling for expediency in securing federal appropriations to aid in construction. The representative from Norfolk joined the West in this attempt.² Again in 1818 and 1820 the West sought federal internal improvements through further appropriations to the Cumberland Road. Kanawhans proposed to ammend these acts to include authorization of the federal government to subscribe two-fifths of the stock of any company incorporated to secure the James-Kanawha communication.³

However, it became apparent that the Chesapeake and Ohio Canal would benefit the West, but not the East and the lower Fall Line towns. Sectional jealousies increased as the C. and O. Canal received a federal appropriation, but not the James-Kanawha project. Sentiment grew and a convention was

¹MacGill, op. cit., pp. 269-270

²Charles Henry Ambler, Ph.D., Sectionalism in Virginia from 1776 to 1861 (New York: Russell and Russell, Inc., 1964), pp. 96-99.

³Ibid., pp. 104-106.

held in Charlottesville to revive interest in the struggling James-Kanawha Canal, making it a rival scheme to that of the federal government on the Potomac.¹

The arguments against nationalism in these projects grew, the chief one evolving around States' rights principles. They argued that the Constitution gave the federal government no power to use federal funds to build roads and canals between the states. They warned that if the federal government used funds for these purposes, its next step would be to infringe on other private affairs of Virginians. Further, they stated that federal support of canal and road building would help Virginia little and alleged that routes easier than that through Virginia would be selected. Virginians would not want to be taxed for internal improvements in other states.²

The first half of the nineteenth century found the strict constructionists successful for the most part. Of the four intercoastal waterway recommendations of Gallatin, the federal government partially supported two. But on the crucial problem of the Appalachian Barrier, federal assistance was limited to the National Road and an early appropriation to the Chesapeake and Ohio Canal Company. The principal achievements of internal improvements had been the work not of the national government toward national goals, but of

¹Ibid., pp. 125-126.

²Simkins, Hunnicutt, and Poole, op. cit., pp. 365-366.

what John Quincy Adams called "State legislature and private adventure."¹

III. EARLY EFFORTS IN TRANSPORTATION--THE CANALS

Virginia rejected a national approach to solving her transportation needs; the challenge that lay ahead was obvious. With this in view Virginia surely would have embarked on a State-directed program for internal improvements. However, the State did not and, as will be described in the pages that follow, although some steps were initiated in this direction, truly unified or comprehensive results were never realized prior to the outbreak of the Civil War. Had such a plan been organized on a broadminded basis, development of Hampton Roads as the Virginia port would have come to the fore as a major factor in this scheme.² Further, such plan would have presented an opportunity to realize the importance of providing trunk routes first, without excessive time and expenditure on feeder lines to appease local interests enroute and without undesirable emphasis based purely on political jealousies and differences.

The influence of conservatism and tradition reduced the likelihood of changing concepts as to modes of navigation. Communication between East and West by means of canals was

¹Goodrich, op. cit., pp. 164-165.

²Wertenbaker, op. cit., p. 175.

first suggested by Washington in 1753; in the late 1700's he studied and recommended that the Appalachians must be conquered by a canal. Under his influence the James River Company was incorporated in 1785 to provide a canal around the falls above Richmond and to improve navigation of the River above the falls.¹ "Of course, this business venture would take many years to complete, but it would be well worth the effort in trade."²

The first section of the James River Canal was completed around the falls seven miles above Richmond by 1795. By 1805 the main bed of the James River was made navigable 156 miles to Lynchburg. In 1826 improvements to the Kanawha River were nearly completed, and a road connecting the two rivers was provided.³ In thirty years only a limited degree of success was realized by the James River Company, however, for James transportation was limited to light, flat-bottomed barges and handling of traffic between modes of transportation was excessive.

Many famous men of the colonial period, including Washington who surveyed the Dismal Swamp, became involved in activities concerning the huge swampland southwest of Norfolk. An early dream was the establishment of a water transportation

¹Ambler, op. cit., pp. 47-48.

²Julia Cuthbert Pollard, Richmond's Story (Richmond: Richmond Public Schools, 1954), p. 63.

³Simkins, Hunnicutt, and Poole, op. cit., p. 347.

system between the rich lands of North Carolina and the growing ports of Norfolk and Portsmouth. As best determinable, actual work by the Dismal Swamp Canal Company began in 1793, having been chartered in 1787 by Virginia and in 1790 by North Carolina. The work was slow and the project filled with errors, but a shallow canal was completed connecting Hampton Roads to Albemarle Sound in 1805. However, the waterway was too shallow to be of great value and by 1814 became little more than a drainage ditch. Ignored until 1826, the Dismal Swamp Canal was deepened and widened and by 1829 was a useful route for carrying North Carolina trade to Hampton Roads.¹ Though the Dismal Swamp Canal played heavily in saving early Hampton Roads from complete economic isolation, it was not a Virginia route, but an artery for the flow of farm products from another state. Virginia was not yet ready to include the ports of Hampton Roads in plans for development of commerce.

As an epilogue to complete this discussion on Virginia Canals, the Dismal Swamp Canal became nearly inactive in 1859 following its two most prosperous decades. This was the result of the opening of the Albemarle and Chesapeake Canal in that year; the new canal provided a deeper, wider, sea-level connection between the Eastern Branch of the Elizabeth River and North Carolina's Albemarle Sound. This was an important line of communication for Hampton Roads, for it

¹Ibid., p. 349; and Hubert J. Davis, The Great Dismal Swamp (Richmond: Cavalier Press, 1962), pp. 43-44, 49, 63-65.

opened navigation by larger vessels from northeastern North Carolina at more favorable toll rates than had the Dismal Swamp Canal. Though immediate results were disrupted by the Civil War, considerable postwar cotton trade developed, strengthening Norfolk's position as the primary port for northeast Carolina.¹

IV. SURVEYS, REPORTS, AND THE BOARD OF PUBLIC WORKS--STILL NO PLAN

The early efforts appeared to be based strongly on the national recommendations provided by Gallatin. In actuality they were not, for they were conceived and begun prior to his report (1808) and were based on (1) the advice of favorite sons, (2) local political interests and legislative logrolling, and, (3) for the most part, local financial subscriptions. However, efforts opening the door to some degree of organization by the State began to evolve in 1812.

A Virginia legislative committee, headed by Chief Justice John Marshall, in 1812 examined the James-Kanawha route, concluding that no unusual difficulties were expected in the 425-mile route.² However, the committee warned that New York's proposed work (Erie Canal) would draw from the

¹Ibid. (Davis), pp. 71, 85; and Wertenbaker, op. cit., pp. 185-186.

²This route included a twenty-eight-mile turnpike over the mountains.

western trade unless " . . . Virginia seized its opportunity to open the much shorter route by the James or Potomac."¹

The second of these early reports came in 1815 from the Assembly's Committee on Roads and Navigation under chairman Charles F. Mercer, later president of the Chesapeake and Ohio Canal Company (Potomac route). This committee was concerned with the extension and systemization of the internal improvement movement. This committee reported two areas of difficulty which had to be met, namely, blunders in the operation of the particular projects and mistakes or favoritism in the choice of projects to be undertaken. They recommended establishment of a board to provide the General Assembly with facts relevant to each application and, secondly, the establishment of a fund--rather than special appropriations--to support internal improvement projects. The result was the establishment in the Act of 1816 of the Fund for Internal Improvements and the Board of Public Works, which would manage the Fund.²

The Fund consisted of revenues from stock held by the state in canals, turnpikes, banks, etc. The Board was authorized to subscribe in the name of the Commonwealth to such public works as the legislature would direct, provided three-fifths of the stock in a particular project had been assumed

¹Goodrich, op. cit., pp. 87-88.

²Ibid., pp. 88-92.

by private parties.¹

Here was an excellent opportunity for the State to launch an overall program, choosing goals for the common good and expediting these goals, or projects, to early realization. Nevertheless, no such program or control was forthcoming.

"The petty scale of much of private enterprise may be illustrated by the . . . advantages claimed for the Virginia system of state aid . . . [by] . . . its Board of Public Works . . . "² In the administration of public works, both the legislature and the Board continued to operate under the general policies laid down by the 1816 committee--reliance on individual initiative and limitation of State control. Even after the State increased its permissible stock in individual companies to three-fifths, it deliberately held the State's vote to a minority. State self-restraint in the exercise of power and great reluctance to enter into the administration of the various companies left the State and the Board in the position of little more than disinterested investors, volunteering technical assistance only with no control and no pursuit of overall objectives. Late in the pre-Civil War era, for example, the State was building a railroad (the Covington and Ohio) via the same route being pursued by the James River and Kanawha Canal Company.³ But " . . . the James River and

¹H. S. Tanner, A Description of the Canals and Railroads of the United States (New York: T. R. Tanner and J. Disturnell, 1840), p. 160.

²Goodrich, op. cit., p. 10.

³The James River Company had been reorganized and incorporated by the above name in 1832.

Kanawha Canal Company claimed a prior right to construct a railroad or a canal over the route designated."¹ The State certainly could have stopped sponsorship of one course or the other, had it chosen to intervene. The Board, a potentially valuable tool, did little to liberalize the State's approach to transportation; it was then concerned with little more than losing the trade of Richmond to Philadelphia and Baltimore, apparently not aware of the long-range effects on the State as a whole.² In fact, both of these duplicating efforts in their race to pierce the Appalachian Barrier failed. The West remained isolated from central and eastern Virginia through 1861, for the canal ran only to Buchanan, about forty miles west of Lynchburg, and the paralleling railroad, as well, terminated at the foot of the Alleghenies. This surely resembled in no way any concept of a comprehensive plan with State control! To make matters worse, in the late 1850's Virginia's credit had declined because of large appropriations to internal improvement companies. This made " . . . it impossible to prosecute work on a central line of improvements."³

The Norfolk Argus summarized this lack of an improvement plan by reporting:

Near \$30,000,000 have been lavished on the inland cities, with no great and general result . . . our

¹Goodrich, op. cit., p. 97.

²Ambler, op. cit., p. 104.

³Ambler, Ibid., p. 313.

efforts were misdirected and our means so misapplied that we were among the last to accomplish any . . . practical result.¹

V. PERSISTING EFFORTS FOR CANAL DEVELOPMENT

The decade of the 1830's with the introduction of steam railways presented renewed opportunity in Virginia for piercing the Appalachian Barrier, as well as for re-assessing her overall transportation development. However, according to most writers on the subject, in general, Virginia failed at this time to grasp its chance.

Why was the James-Kanawha Rivers project, nearly abandoned for sundry reasons at various times since her inception in 1785, revived by rechartering in 1832 into the James River and Kanawha Canal Company (hereafter, J. R. K. C. Co.)? Baltimore, the first to significantly respond to the new challenge, had laid the cornerstone to the Baltimore and Ohio Railway as early as 1829, giving that city a long head start over the Hampton Roads rival ports.² To add further to the questions surrounding the dilemma of channeling future produce of Virginia to Virginia ports, the legislature incorporated railroads connecting with the B & O, permitting Baltimore to assume the position of seaport for much of Virginia.³

One reason for the line of improvements not yet empha-

¹Wertenbaker, op. cit., p. 176, citing Norfolk Argus, March 14, 1856, and July 9, 1858.

²Ibid., p. 166.

³Ibid., p. 177; and Ambler, op. cit., p. 125.

sized was that Virginia's " . . . legislators yet believed it possible to make Richmond a commercial rival of Baltimore, Philadelphia, and New York."¹ The opening of trade to Baltimore was hardly consistent with this "goal"! Beyond the traditional, political, and local aspects, one of the greatest influences upon canal building long into the age of railroads was the tremendous success of New York with the Erie Canal. The economic wisdom of the Erie Canal, extending 363 miles across New York, and its feeder canals was above question, for it paid for itself and made a major contribution to the development of New York State, New York City, and the nation, as well. The success was proclaimed by the historian of the canal-opening celebration in 1826 as follows: "They have built the longest canal in the world in the least time, with the least experience, for the least money, and to the greatest public benefit."² The dreams inspired by the stories from New York had considerable effect on the choice to reinstate work on the James-Kanawha connection in 1832. The new company was supplied with funds from the State of Virginia and the cities of Richmond and Lynchburg.³

Nevertheless, railroads became a greater factor in transportation daily. While the West saw it as the only practical solution to its problems in 1831, the East clung to the

¹Ibid., p. 175.

²Goodrich, op. cit., p. 53.

³Lansing, op. cit., p. 101; Wertenbaker, op. cit., p. 166; Goodrich, op. cit., pp. 52-53; and Simkins, Hunnicutt, and Poole, op. cit., p. 347.

canal. The Richmond press applied arguments used by the Chesapeake and Ohio Canal (which it opposed on general principles) to promote the James River and Kanawha Canal.¹ One enlightening aspect was that the legislature, while incorporating the J. R. K. C. Co. to extend the canal to Lynchburg and to make the Kanawha navigable, did choose to recommend connection of the two waterways by a railroad. Though it may have been too much to expect the legislature to see at this early date the possibilities of railroad transportation, to accept the wisdom of abandoning George Washington's dreams of a canal to the Ohio, and to ignore the fact that the Erie Canal had made New York so wealthy and powerful, they did not stop to consider that profits would be eaten up by transshipments from the Kanawha to the railway, to the James canal, and finally to the lower James.² "They did not dream that eventually railways would prove so efficient that even the great Erie Canal could not compete with them."³ Even when the errors became apparent, they did not choose to abandon the past canal investment for aggressive railroad development.⁴

According to H. S. Tanner's 1840 report on Virginia:

The most important work now in progress in Virginia is the James and Kanawha river improvement . . . As soon [as] it shall be completed it may be expected to pour into the canal an immense trade.⁵

¹Ambler, op. cit., p. 179.

²The falls could not be bypassed by the large craft then using the James Canal.

³Wertebaker, op. cit., p. 174.

⁴Ibid.

⁵Tanner, op. cit., pp. 160-161.

Again in the 1844-1845 Assembly there was an attempt by the Whigs to connect the James and Kanawha with a continuous canal. The scheme found some favor, but the Senate approved the appropriation only on the basis that the canal be constructed no further than Buchanan.¹ In 1851 the James River Canal did reach Buchanan, 196 miles from Richmond, but there the canal stopped, leaving "the people . . . disappointed that they had been unable to carry out Washington's dream of a water connection . . . [to] . . . the region beyond the mountains."²

That this line might be concluded, the 1859-1860 Assembly revived interest in the canal to the Ohio by authorizing another \$2.5 million loan for the Company,³ and as late as 1871 Congress was approached for a \$50 million grant with the following argument: "It has been supposed by some that the day of canals is past. Facts do not sustain this view . . . "⁴ The funds from the national government were not approved. Unfortunately, the census of 1880 treated the canal as one of the abandoned waterways,⁵ nearly negating

¹Ambler, op. cit., pp. 241-242.

²Simkins, Hunnicutt, and Poole, op. cit., p. 347.

³Ambler, op. cit., p. 317.

⁴MacGill, op. cit., p. 271, citing Report of Chief of Engineers, February 9, 1871, in House Document No. 110, 41st. Congress, Third Sess.

⁵MacGill, op. cit., p. 271.

almost one century and \$10.5 million of effort in pursuit of a canal through the Appalachian Barrier.¹

All this relative to the James River and Kanawha Canal served to verify contentions that Virginians (1) strenuously failed to tear themselves from the bonds of tradition and ultraconservatism established so early by George Washington, and later associated with Virginians Chief Justice Marshall and Colonel Breckenridge; (2) sought goals with very localized interests in view; (3) failed at their opportunity to provide a strong central Board of Public Works; and (4) failed to recognize the infeasibility of crossing mountains by canals when a change to a practical, long-range method presented itself with the advent of the railroad. These aspects served to verify Wertenbaker's prime target of argumentation for the failure of Virginia to re-establish and build its very early lead in trade; but those Virginia ventures in railroads that did take place best exemplified his Fall Line Blockade allegations relative to the retarding of Hampton Roads' development.

VI. RAILROADS FOR THE FALL LINE--BUT NOT FOR HAMPTON ROADS

Obviously, Virginians could not entirely ignore railroad development, as may have been implied in the previous

¹Ibid., pp. 273, 459.

discussion. However, it was extremely apparent that full advantage of that mode of transportation first was overshadowed by the canal approach to conquering the Barrier and, secondly, was overlooked in meeting the import-export development of her "natural harbor" at Hampton Roads. A chronology of railroad sponsorship and promotion by the state legislature reflected the latter aspect.

The movement of produce to the coast from inland producers had to be broken at the nearest point where freight could be transferred from wagon to boat. This was the case before the railroad, and the Fall Line cities flourished as a result.¹ In 1830 the first locomotive built in the United States was placed into operation on the Charleston and Hamburg in South Carolina. In 1831 horse drawn coal cars operated on twelve miles of tracks between the mines in Chesterfield County and Richmond, doing a thriving business in this manner until 1850. The Petersburg Railroad Company, chartered in 1830, connected with Weldon, North Carolina, on the Roanoke River in 1833 to become the first steam powered railroad in Virginia.² News of the plans for this project by Petersburg reached Norfolk in 1929 and stirred Norfolk to action. "It is absurd for Petersburg to aspire to be a great seaport . . . Why, most

¹Ibid., p. 263.

²Ibid., p. 310; Tanner, op. cit., p. 162; and Pollard, op. cit., p. 111.

of her people never saw a ship,"¹ stated a Norfolk newspaper.

As a result, the Portsmouth-Weldon line was projected to run seventy-six miles to Weldon in hopes of retaining the Hampton Roads trade level with North Carolina. The people of Norfolk subscribed \$100,000 in stock and Portsmouth took \$50,000, but a request for the additional aid needed from the State was blocked in the Senate by a fourteen to fourteen tie vote, blamed by the Norfolk Herald on the Petersburg interests aligned with the deep-rooted jealousy of the Richmond group.²

Though disappointment ensued as a result of blunders in construction, wasted investment in shops for building rolling stock (determined to be infeasible), and a failure to draw the trade back from Petersburg, the construction of a railway from Weldon to Willmington, North Carolina, in 1841 brought new hope. However, the connection between the Portsmouth line and the Wilmington line had required construction of a bridge across the Roanoke; the financial strain was too great and the creditors sold their claims to Captain Francis E. Rives, a representative of the Petersburg line. His activities and a long, losing, legal battle for the Portsmouth road ended in the failure of Norfolk's first

¹Wertebaker, op. cit., p. 167, citing the Norfolk Herald, February 27, 1833.

²Ibid., p. 168, citing Norfolk Herald, March 1, 1833.

effort to benefit by means of railroad development.¹

The preceding were only the first of Virginia's early railroad projects; in fact, these hardly represented Virginia routes, but exploitation of the resources of other states by individual Virginia cities, as had been the case with the canals. The Baltimore and Ohio line, already mentioned, tapped northern Virginia's resources by a connection with Winchester, completed in 1836. This marked the end to deprivation of the northwest part of Virginia from a connection with the outside world, for it opened Virginia territory to further exploitation by the very aggressive Baltimore railroad interests.²

It had been only a few years before, in the 1830-1831 legislature, that two of five railroad companies incorporated were the Staunton and Potomac and the Lynchburg and New River. The plan of the East was to divert the trade of the West from the New York and Pennsylvania routes to the Kanawha-River, New-River, and James-River routes. Norfolk had favored the plan on the assumption that the proposed railroad line would eventually be extended to her piers. The entire scheme was killed when the same session rejected an appropriation to aid the newly incorporated companies, for private capital simply was not available in the West.³

¹Ibid., pp. 168-173; and MacGill, op. cit., pp. 464-465.

²Ambler, op. cit., p. 179.

³Ibid., pp. 180-181; and MacGill, op. cit., p. 457.

Failure to recover from this, perhaps, made this one of the most crucial of moves for Virginia for it led to lack of success in breaking through the Barrier; this was never realized until well after the Civil War. An era of conservatism and prejudice against railroad construction within the State had begun, and considerable deterrence to progress was the result.

Other railroad companies were incorporated, but most significant to this study was the almost unanimity of railroad projects connecting Fredricksburg, Richmond, and Petersburg ("Fall Line" Cities) with the available trade centers. As presented by Tanner in the 1840 report by Virginia:¹

The principle works of this description [railroads] in the state are the Richmond and Fredricksburg, Richmond and Petersburg, and the Petersburg and Roanoke Rail-roads [sic] . . . When Virginia shall have completed the railroad between Fredricksburg and the Potomac, and corrected the roads at Richmond and Petersburg, she will have done every thing that can reasonably be expected of her . . . With her great western and south-western improvements carried out . . . Virginia might again take rank among the foremost states of the confederacy.²

These statements and the forecasts of other railroad projects found in Tanner's report verified several of Wertenbaker's allegations: First, a concentration of economic sponsorship and promotion of Fall Line city development with hardly token consideration for the Hampton Roads area; secondly, an almost

¹Underlines are those of this author to emphasize the "Fall Line" nature of the statement. Report assumed to be report of Board of Public Works.

²Tanner, op. cit., p. 160, 166.

complete ignorance of any potential to be realized from aid to development of Hampton Roads; and third, a firm belief that the State was doing all that could be expected in the realm of progressive railroad programs. Nevertheless, as stated in the previous section of this chapter and in the above report, as well, "The most important work now [1840] in progress . . ." was the James and Kanawha River improvement.¹ Virginia railroads built prior to the Civil War or conceived during the period but not completed, as summarized in Table IV, re-emphasized the theme of these ideas.

The Richmond and Ohio was incorporated in 1846 as another approach to crossing the mountains, and a hotly contested bill to extend the Baltimore and Ohio through Virginia was passed in the same year. The Canal interests, however, gathered enough votes to kill the state appropriation bill for \$4.8 million (of a needed capital of \$10 million), and the former line only reached the eastern side of the mountains by 1860. The latter railroad was successful during the pre-Civil War period in making two valuable connections with the Ohio to Parkersburg and Wheeling, both (then) in Virginia, but its route laid on or within the entire northern border of Virginia west of Washington. It served to drain northern Virginia of her resources to the unquestionable pleasure of Baltimore, having connected in 1836 with the

¹Ibid., p. 160.

RAILROADS PLANNED BY VIRGINIA BEFORE 1861*

<u>Railroad</u>	<u>Year Completed</u>	<u>Length (miles)</u>	<u>Connections</u>
Petersburg and Roanoke	1833	80	Petersburg
Winchester-Potomac	1836	32	Roanoke River
Portsmouth-Roanoke	1837	80	Winchester
Louisa	1837	49	Harpers Ferry
Rich., Fred'burg, Potomac	1837	61	Weldon, N. C.
	1842	14	Portsmouth, Va.
Cumulative of lines less than 25 miles each	by 1840	89	Richmond
Baltimore-Ohio	1853	240	Gordonsville
		(in Va.)	per name
South Side	1854	122	various
Virginia-Tennessee	1856	209	Ohio River
Northwestern	1857	100	(Parkersburg)
Norfolk-Petersburg	1858	102	Petersburg
Richmond-Danville	1850's	147	Lynchburg
Orange-Alexandria	1850's	98	Lynchburg to
Manassas Gap	1850's	103	Tenn. border
Virginia-Central	1850's	195	B & O to
Proposed in 1840**			Wheeling
Staunton-Scottsville	n. c.	55	per name
Danville-Wythe	n. c.	125	per name
Fredricksburg-Scotts	n. c.	65	Louisa RR to
Richmond-Yorktown	post-war	65	Alexandria
			Shenandoah
			to O & A RR
			Charlottesville
			to Covington

*(Government Promotion of American Canals and Railroads, 1800-1890; History of Transportation in the United States before 1860; Virginia: History, Government, Geography; A Description of the Canals and Railroads of the United States; and Norfolk: Historic Southern Port)

**n. c. = railroad not completed.

Winchester and Potomac Railroad at Harpers Ferry and scheduled to be connected by the Orange and Alexander Railroad before the War.¹

In 1847 the city of Richmond voted a subscription to the stock of the Richmond and Danville Railroad of up to \$200,000. The late 1840's saw State appropriations for a number of roads, indicated by the following:²

Blue Ridge Railroad	\$300,000
Charlottesville to Staunton	90,000
Virginia and Tennessee.	1,800,000
Orange and Alexandria Road.	1,800,000
A transfer of the State's stock in the Petersburg and Roanoke to the city of Petersburg	325,000

The Board of Public Works, Report of 1851, reported the emergence of a coordinated network of railroads, of which the principal segments were the north-south roads between the Potomac and the North Carolina border and four routes extending from it to the west.³ This again emphasized the omission of Hampton Roads during the relatively later stages of Virginia's early transportation development, although there at least was a claim of a "coordinated program." Only two of the four mentioned westerly routes, the Virginia and Tennessee (209 miles in Virginia) and the B & O (supplying Baltimore

¹MacGill, op. cit., pp. 459-460; Simkins, Hunnicutt, and Poole, op. cit., p. 352; and Wertenbaker, op. cit., pp. 174-176.

²MacGill, op. cit., pp. 460-461.

³Goodrich, op. cit., pp. 98-99, citing Thirty-eighth Report of the President and Directors of the Board of Public Works to the General Assembly of Virginia (Richmond: 1851), pp. iv-xxii.

via Virginia) were completed by 1861.¹

Other railroads completed within the State prior to the Civil War included the Blue Ridge Railroad connecting the Louisa Road (Gordonsville) to Charlottesville, The Virginia and Central from Waynesboro to Covington, the Richmond and Danville, the Southside Railroad between Petersburg and Lynchburg, and the Orange and Alexandria Railroad connecting Gordonsville with the Potomac. Finally, after a strenuous appeal beginning in 1851, the Norfolk and Petersburg, connecting the age-old rivals, opened east-west trackage across the state in 1858.² Though there was little consistency between references, one source reported a total of 1290 miles of railroad tracks in Virginia (excluding the present state of West Virginia) in 1860.³

VII. POST-WAR, SUMMARY, AND

CONCLUSION OF CHAPTER II

How legitimate was Wertenbaker's reported Fall Line Blockade? His presentation in Norfolk: Historic Southern Port was filled with reference to editorial battles between the newspapers of Norfolk and Richmond and of Norfolk and Petersburg. Because of this, verification of the concept

¹Ibid., p. 99; and MacGill, op. cit., p. 461.

²MacGill, op. cit., pp. 461-462; and Simkins, Hunnicutt, and Poole, op. cit., p. 351

³Ibid., (Simkins, et al), loc. cit.

necessarily required the opinions and reports of others, including considerable background on the long-range efforts of Virginia to develop transportation communications.

The chronology of pre-Civil War canal and railroad programs leaves only the question of "what really was the purpose in ignoring Hampton Roads during this important period?" Surely, it was not a direct intent to hurt the coastal port; but a summary of basic areas of consideration do verify that a "blockade" in effect, if not intent, did prevail.

First, chronologically, was the influence of the numerous reports and recommendations of an earlier era, backed by such grand old Virginians as Washington, Marshall, and others. The tradition and ultraconservatism of these names overlapped well into the era of "canal obsolescence," brought about by the introduction of railroads. The tremendous success of the Erie Canal had a like influence. The result was excessive waste through obsolescence, short-sightedness leading to "poor results"¹ from many of Virginia's programs, and a delayed start in effective statewide transportation progress, such as inclusion of communication with Hampton Roads.

At a time when the faith formerly placed in waterways was generally being transferred to railroads as a means of communication, the people of Virginia were engaged in

¹MacGill, op. cit., p. 463, 459.

the construction of the James River and Kanawha Canal between the East and new West--the last of its kind to be built.¹

Secondly was the tremendous political power (blockade, if you will) of the Fall Line cities in controlling legislative appropriations toward jealous, localized ends, including favoritism to secure this stronghold.² "A legislative committee declared that Virginia harbored more local and discordant interests than any other state."³ The lack of political power in southeastern Virginia was further exemplified in a recent news story reporting that Littleton Waller Tazewell (1774-1860) was the only other southeastern Virginian to represent his state in the United States Senate prior to the election of William Belser Spong, Jr., to the U. S. Senate in 1966.⁴ Perhaps it is too easy to conclude that this power was capable of obtaining funds for canal development and then, in the belated attempts to update, that this power was also capable of hoarding funds for simultaneous railroad development, all the routes of which obviously were converged on a select group of cities while other urgent development only waited in amazement and futility.

¹Ibid., p. 269.

²Wertenbaker, op. cit., p. 186.

³Goodrich, op. cit., p. 98, citing Proceedings and Debates of the Constitutional Convention of 1829-1830 (Virginia), p. 114.

⁴George H. Tucker, "A Public Man Who Longed for Privacy," The Virginian-Pilot (Norfolk: February 5, 1967), pp. B1-B2. Tazewell served in the Senate from 1824 to 1832.

It was fact that before 1858, nearly thirty years after the first American success with railroads, the only active line to or from Hampton Roads was that running to Weldon, North Carolina, a safe distance from Richmond's and most of Petersburg's trade. The emergence of Newport News as a port was not to be realized until 1882 with the laying of the Chesapeake and Ohio Railroad. As a result, Newport News which had been no more than a fishing village surrounded by farmlands, since became known as "Coal Port of the World" and "Tobacco Port of America," handling a considerable traffic of general cargo, ore, and oils, as well.¹

One Virginia historical book, compiled for public school use, relates: "The coming of three great railroad systems between 1882 and 1904 changed Norfolk from a town of little trade into one of the most important ports in the entire country."² Had not the railroad been sought strenuously by Norfolk from the early 1830's, only to reach it from other Virginia cities no earlier than 1858? Why was Norfolk required to wait for the turn of the next century to prosper from the new transportation era, while the Fall Line cities, in fact, excelled it as a port until the 1870's, when ocean liners had grown too large to easily ascend the James or

¹J. Spencer Smith, Paul A. Amundsen, and Helen Delich Bentley, Ports of the Americas, History and Development (n. p., The American Association of Port Authorities, Inc., 1961), pp. 166-167; and Simkins, Hunnicutt, and Poole, op. cit., p. 477.

²Ibid. (Simkins et al.).

Appomattox?¹

As stated by Wertenbaker, it is easy to use hindsight regarding what should have been done. Had Virginians grasped the full significance of the possibilities and placed their confidence in a wise, comprehensive scheme of rail construction beginning in the decade from 1830-1840, they would have realized a higher level of economic significance. Even to the extent of preventing disunion, perhaps they could have joined the western counties (now West Virginia) with economic bonds.

Starting with Norfolk, the State's only great ocean port, a railway should have been built west to Petersburg, Richmond, Charlottesville, Staunton, Charleston, and the Ohio River. There should have been no delay for minor undertakings, no side lines, until one central trunk railway had been put into operation. Then the north and south lines could have been added . . .²

The period of internal improvements was for many states and cities marked by glorious success, by expanding trade, growing wealth, increasing population. For Virginia, and especially for Norfolk, it was a time of wasted opportunities and bitter disappointment.³

Intentionally or unintentionally directed, Norfolk was without question the victim of an economic blockade--a "Fall Line Blockade."

¹Wertenbaker, op. cit., p. 277.

²Wertenbaker, op. cit., p. 175.

³Ibid., p. 186.

CHAPTER III

PROPOSED IMPROVEMENT TO NAVIGATION OF THE LOWER JAMES RIVER, VIRGINIA

I. THE PLAN OF IMPROVEMENT

The current plan of improvement of the James River was presented to the Speaker of the House of Representatives (U. S.) by the Secretary of the Army on September 25, 1962. As presented, the plan recommended the modification of the existing James River Project¹ to provide for a channel thirty-five feet deep at mean low water level and three hundred feet wide, to extend from the upper end of the Richmond Deep Water Terminal downstream 82.3 miles to the mouth of the river at Newport News. The depth of thirty-five feet was established as the minimum for the potential traffic of petroleum products in large tankers (up to 27,000 tons) with drafts up to thirty-one feet. A minimum of two feet between the keel and channel bottom, plus one foot for "squat" when in motion, and one foot for loss of bouyancy while in fresh water were the accepted criteria of marine interests. Hence a depth of thirty-five feet was recommended. The width of three hundred feet was selected as the minimum that would permit two large vessels to pass each other with safety.²

¹"Existing James River Project" will be discussed in Section II of this chapter.

²U. S. Army Engineer District, Corps of Engineers, Review Report on James River, Virginia (Norfolk: Corps of Engineers, September 27, 1962), Sec. 43.

The project modification also provided for a minimum radius of curves of 3,000 feet in all channel bends. Though not entirely consistent with criteria recommended by marine interests, who advocate 4800 feet radius of bends, " a radius of 3,000 feet is considered the maximum that can be provided without incurring heavy costs of land acquisition, dredging, and disposal rights."¹

Further, the improvement called for a mooring basin 180-220 feet wide by 2100 feet long opposite the Hopewell water-front. This would provide a tie-up point for vessels which encountered heavy fog while bound upstream. The turning basin at Deep Water Terminal was also to be widened from 600 feet by 2700 feet to 825 feet by 2770 feet in order to turn and maneuver the anticipated larger ships calling at Richmond.²

The Corps of Army Engineers report assured that available economies of design and construction would be realized where possible; e. g., following of existing deep water and use of the most practical modes of dredging.³

An alternate plan, referred to as "Plan II", was also studied, although not recommended because of less general improvement for potential traffic accompanied by only a slightly improved benefit-cost ratio. Plan II called for a channel thirty-two feet deep, three hundred feet wide, and eighty-two miles in length.⁴

¹Ibid.

³Ibid.

²Ibid.

⁴Ibid., Sec. 44.

Benefits were based on transportation charges for the (then) existing vessels. The primary savings anticipated in the report were (1) diversion of tonnages of commodities from rail and truck carriers to deep-draft vessels and (2) the incremental savings of transporting certain bulk commodities in larger, deep draft vessels rather than smaller or partially-loaded ships. Other depths were not considered, apparently because Plan II reportedly gave the highest benefit-cost ratio (2.4 to 1), and a diminishing ratio was assumed to occur at other channel depths, as concluded by the determination for the thirty-five feet channel of Plan I (2.2 to 1 ratio).¹

Benefit-to-cost ratios were determined by dividing annual transportation savings creditable to each of the two improved channel depths by the annual carrying charges evolving from the respective improvements. Annual charges comprised (1) the Federal annual charge, including interest and amortization of the Federal investment for fifty years (at $2\frac{5}{8}$ per cent), average increased cost of maintaining the proposed improvement, and average cost of maintaining navigation aids, plus (2) non-Federal annual charge, including interest (5 per cent for lands, $4\frac{1}{2}$ per cent for other-than-land), amortization, average non-retrievable increased cost of maintenance for the expanded Deep Water Terminal and berthing area, estimated net average loss of James River oyster production

¹Ibid., Secs. 54, 55.

(marketable and seed oysters), and average cost of maintaining retaining structures. The two benefit-cost ratios were computed as presented in Table V, which employs total figures.¹

A major factor of the benefits to be realized was the predicted average annual deep-draft tonnage that could develop from the increased channel depths. The additional tonnages, as estimated in the Corps of Army Engineers report of 1962, were 2,825,280 tons on a channel depth of thirty-two feet (Plan II) and 3,192,280 tons on a channel thirty-five feet deep (Plan I), as presented in Table VI.²

Although the project improvement justification was heavily based on benefit-cost ratio criteria, the following was included in the introduction to the Review Report:

The District Engineer finds that the existing 25-foot channel . . . is entirely inadequate for the economical movement of bulk commodities in the foreign and coastwise trades. He finds that a channel 35 feet deep to the Ports of Hopewell and Richmond would (1) permit the economical transportation of petroleum and other bulk commodities now carried in lighter draft vessels; (2) permit the economical diversion of certain commodities from rail and truck to water; and (3) place the Port of Richmond on a competitive basis with other Atlantic Coast ports on the basis of economical export and import of various commodities.³

Congress voted approval of the project in 1962, but held up appropriation of funds pending final approval by the State.⁴

¹Ibid., Secs. 50-52.

²Ibid., Secs. 28, 31.

³Ibid., Syllabus

⁴News item in The Virginian-Pilot, October 5, 1962.

TABLE V
COMPUTATION OF BENEFIT-COST RATIOS
JAMES RIVER PROJECT IMPROVEMENT
FOR PLANS I and II
(Based on Predicted Fifty-year Life of the Improvement)
1962 Estimates
(Review Report on James River, Virginia)

	<u>PLAN I</u>	<u>PLAN II</u>
Total Federal Investment	\$41,952,500	\$29,334,300
Total non-Fed Investment	2,040,000	1,715,000
TOTAL INITIAL COST	<u>\$43,992,500</u>	<u>\$31,049,300</u>
Total Federal Annual Carrying Charge . .	\$ 1,768,400	\$ 1,267,200
Total non-Fed Annual Carrying Charge . .	197,900	180,000
TOTAL ANNUAL CARRYING CHARGE . . .	<u>\$ 1,966,300</u>	<u>\$ 1,447,200</u>
Benefits Creditable to Proposed Improvements (Annual Savings in Transportation Costs)	<u>\$ 4,259,000</u>	<u>\$ 3,455,000</u>

Benefit-Cost Ratio (PLAN I)	=	$\frac{\$4,359,000}{\$1,966,300}$	=	2.2
Benefit-Cost Ratio (PLAN II)	=	$\frac{\$3,455,000}{\$1,447,200}$	=	2.4

TABLE VI

LOWER JAMES RIVER, VIRGINIA
 PREDICTED AVERAGE ANNUAL DEEP-DRAFT TONNAGE, BY COMMODITIES,
 FOR 32- and 35- FEET CHANNELS
 Years 1966 to 2015 A. D.
 (Review Report on James River, Virginia)

Commodity	Channel 32 feet deep (Short tons)	Channel 35 feet deep (Short tons)
Petroleum products	1,839,000	2,206,000
Iron and steel scrap	165,000	165,000
Ammonium sulphate	80,000	80,000
Sulphur	61,000	61,000
Grains, including soybeans	55,800	55,800
Soda ash	25,000	25,000
Soda, caustic	110,000	110,000
Molasses, blackstrap	50,000	50,000
Sugar, refined and raw	84,000	84,000
Paper, newsprint	33,300	33,300
Phosphate, rock	27,500	27,500
Nitrate of soda	23,000	23,000
Potash	25,000	25,000
Other commodities (Canned foods, leaf tobacco, cot- ton pulp, crude rubber, cigarettes)	<u>246,680</u>	<u>246,680</u>
TOTAL	2,825,280	3,192,280

Note: The only actual increased tonnage, according to this table, is in the tonnage of petroleum products; this fact is paramount to the justification argumentation as will be seen.

Thus, an improvement was recommended in 1962 to deepen the James River navigation channel from twenty-five to thirty-five feet. The justifications for the project improvement were favorable benefit-cost ratios, improved navigation safety, and the expected opening of Richmond and downstream cities to a future as inland seaports of Virginia.

II. EVOLUTION OF EARLIER IMPROVEMENTS TO THE LOWER JAMES RIVER

The tidal section of the James River from Hampton Roads to Richmond has been reported as the most important inland waterway in the State relative to industry and trade. The general trade area has included Virginia, southern West Virginia, eastern Kentucky, northern North Carolina, and parts of Indiana, Ohio, and Tennessee.¹

Richmond, located ninety-one miles upstream from Hampton Roads, further west than other ports on the north Atlantic Seaboard, has been credited as a manufacturing, retail, and wholesale center, doing more than forty per cent of all wholesale business in Virginia. Transportation routes inland from Richmond were always excellent, except during the late Civil War and Reconstruction periods. Customs receipts at the Port exceeded \$4 million annually, according to a 1962 report.²

¹Review Report on James River, Virginia, op. cit., Sec. 9.

²Ibid., Sec. 10.

The port of Hopewell, located eighteen miles downstream from Richmond where the Appomattox merges with the James, has been described as an industrial city with a 1960 population of about 18,000. Since becoming a city in 1916, Hopewell established reportedly the largest nitrogen plant in the world, as well as plants manufacturing other products, including fertilizers, chemicals, plastics, film, safety glass, explosives, and paper products. Hopewell has been served by two railroads for several years.¹

The existing Federal James River Channel Project,² dating from 1884, included numerous modifications. In 1947 it was completed with present Project widths and depths. These project specifications comprised a channel twenty-five feet deep and three hundred feet wide from the mouth to Hopewell, 69.2 miles; twenty-five feet deep and two hundred feet wide between Hopewell and Richmond Deep Water Terminal, 17.2 miles; and a channel eighteen feet deep and two hundred feet wide to Richmond Lock in the upper harbor (site of the entrance to the old James River and Kanawha Canal), 4.4 miles; a turning basin two hundred feet wide, six hundred feet long, and eighteen feet deep in the upper harbor; and a turning

¹Ibid., Sec. 11. Significantly, of twenty-six terminal facilities on the lower James River, fifteen handle petroleum products only, two handle sand and gravel, two are tug berths, two are in disrepair and unused, two handle chemicals only, and only three handle general cargo.

²As compared with the proposed "Project Modification," comprising Plan I, discussed in Section I of this Chapter.

basin 200-700 feet wide, 5200 feet long, and twenty-five feet deep at Deep Water Terminal.¹

Earlier programs, originating work on the lower James, included a Federal expenditure of \$22,500 for dredging and rock removal between 1852 and 1854, resulting from an 1836 Federal survey. The City of Richmond contributed \$21,300 on this work, as well. The "Original Project," as a comprehensive program, was adopted by the River and Harbor Act of July 11, 1870, and provided for a channel eighteen feet deep and 180 feet wide between the mouth of the river and Richmond. By 1884 this work produced a channel 12.5 feet deep at a cost of \$736,000. In that year the "Existing Project" was adopted. To that time Richmond had contributed \$403,058 (55 per cent) to the "Original Project." Through 1947, Richmond had met all terms of cooperation with the Federal Government, including land acquisition, local dredging, and maintenance costs totalling \$2,811,320. Federal expenditures for new work and maintenance totalled \$14,029,048. Richmond also participated voluntarily in project maintenance, spending an additional \$123,579 between 1924 and 1939 to operate a dredge in the upper harbor.²

The Corps of Army Engineers report stated, on the other hand, that "the City of Hopewell has not incurred any costs in connection with the existing project."³ No improve-

¹Review Report on James River, Virginia, op. cit., Sec. 16.

²Ibid., Secs. 15, 17-19. ³Ibid., Sec. 18.

ment had been accomplished at the Port of Hopewell, except occasional dredging by industrial interests.¹

The present report (Army Engineers, 1962) to evaluate modifying the existing project was authorized by resolution of the Committee on Public Works of the United States Senate, adopted August 13, 1954; by resolution of the Committee on Public Works of the House of Representatives, adopted March 30, 1955; and by subsequent resolutions.²

Though study of the project modification began soon after these authorizations were granted, varied questions have presented considerable debate on the merits of the proposal in the form of hearings, studies, reports, alternate proposals, etc. Progress toward development of the modification proposal, as a result, has been slow, as well as attainment of a final approval. In addition there have been indications that there will remain considerable room for further debate in the future with the result of possible obsolescence of the current proposal before the work.

III. CHRONOLOGY OF ARGUMENTATION ON THE JAMES RIVER IMPROVEMENT PROPOSAL--TO 1962

The movement for a deeper channel in the James began in 1948.³ Many persons and organizations presented views and

¹Ibid., Sec. 19.

²Ibid., Sec. 1.

³News item in The Virginian-Pilot (Norfolk), November 27, 1960.

findings in reports, studies, and public commentary which served to supplement, support, and/or oppose the recommendations of the Corps of Army Engineers. The development of the Review Report was a slow process, representative of most public works. The long course, in terms of time, led many to believe that should the improvement ever reach realization, it will have become obsolete. This was similarly significant in the failure of efforts to complete the James River and Kanawha Canal crossing of the Appalachian Barrier.

The actual study for the current proposal was authorized by Congress in 1954-55, climaxing the first major delay of recognizing a "need." In seeking the authorization at that time, one Virginia U. S. Representative stated: "I believe the extended delay in making this important survey has affected adversely the economic development of Virginia."¹ Maintenance authorizations to that time included budget items of \$16,000 for survey work and \$150,000 for general improvement to the channel. The intent of the new survey was to gather data on several channel depths (to thirty-five feet) to determine the "most feasible and economic one."² Representative J. Vaughan Gary of Virginia, attending a Corps of Engineers hearing in 1955, stated that the deepening of the channel to thirty-five feet would "remove the last

¹News item in The Virginian-Pilot, January 30, 1955.

²Ibid.

barrier to a tremendous industrial development . . ." and that the area near the head of the channel was " . . . one of the few remaining sites in the United States suited for basic steel production."¹ Cost of the channel of thirty-five feet was then estimated at more than \$20 million.

Others at the 1955 hearing included the Virginia State Ports Authority (VSPA) and the Hampton Roads Maritime Association; both supported the improvement on the basis of scarcity of industrial sites on deep-water in the Hampton Roads area.²

The VSPA, which is charged with developing world and domestic commerce through ports of Virginia, stressed in their lengthy statement that by reason of lower or competitive port costs and inland freight differentials, certain bulk and general commodities should move to and from the United States and world markets through the port of Richmond. The VSPA's conclusions were based on information obtained from 373 firms in Virginia, North Carolina, Tennessee, West Virginia, and Kentucky, considered to be within the trade area of southern Virginia ports. The firms, exporting seventy-two commodities to world markets, were using other east coast ports because the James River Channel would not permit navigation by steamships of sizes necessary to handle their cargoes. The report concluded that the annual trade through Richmond would increase by 248,691 tons of exports and 245,252 tons of imports.

¹News item in The Norfolk Ledger-Dispatch, December 15, 1955.

²Ibid.

This was compared to a total waterborne traffic through Richmond in 1954 of 2,469,000 tons, comprised primarily of sand, gravel, shells, and petroleum.¹

The statement by the VSPA further emphasized the potential for industrial development and expansion on a large section of the river as a result of a deep-water channel, because of the support that port development and industrial expansion provide one another. Still another advantage of these sites was the desirable decentralization of mass production industries for economic, as well as national security, reasons; James River sites were within the meaning of this.²

The VSPA statement outlined five steps necessary for the development of Richmond as a port:

1. Deepen the river channel to thirty-five or more feet.
2. Obtain favorable inland freight rates for potential import-export commodities.
3. Establish satisfactory steamship services to ports of export recipients and import suppliers.
4. Develop port facilities suitable for handling a diverse number of commodities.
5. Launch an aggressive effort to "sell" the port to potential users.³

¹The Virginian-Pilot, March 22, 1956; and "In Support of Deepening and Improving the James River . . .", a statement by the Virginia State Ports Authority before the Corps of Engineers, Department of the Army, Richmond, Virginia, December 15, 1955.

²Ibid.

³News item in The Norfolk Ledger-Dispatch, March 21, 1956.

The report summarized that the only barrier to the James becoming one of the country's important arteries of world trade was the James itself; the improvement would provide hope for benefits to the economy that would far exceed calculable costs for the work.¹

The original authorization for costs of the survey was \$77,000. By early 1956 total costs of preliminary studies were adjusted to \$157,000.² The Norfolk District Chief of Army Engineers in August, 1956, estimated total costs for the improvement of \$35 million with a construction period of from five to six years.³ Early in 1957 the topographic and hydrographic surveys were reported complete, and a tentative plan for improvement was discussed with representatives of Richmond and Hopewell. The economic study of benefits and costs was reported to be complete by March of 1957.⁴

Progress appeared to be satisfactory, but by the end of 1957 considerable opposition to the improvement had, in effect, seized control. First, a new Blockade--a "Hampton Roads Blockade," was coming to the fore and, secondly, the mysteries of oyster seed production presented questions involving possible damage--perhaps even total destruction--to Virginia's oyster industry. Though the primary underlying

¹Ibid.

²News item in The Virginian-Pilot, January 22, 1956; and The Norfolk Ledger-Dispatch, February 23, 1956.

³News item in The Virginian-Pilot, August 19, 1956.

⁴News item in The Norfolk Ledger-Dispatch, January 28, 1957.

concern of Hampton Roads was alleged loss of port business through diversion to Richmond, State legislators from Hampton Roads lined up to back legislation subjecting any James River dredging in the oyster areas to prior approval by the State Fisheries Commission. Such a bill was introduced February 10, 1958, by Delegate Russell Carmeal of Williamsburg, stating that although Tidewater legislators had no desire to block Richmond's development of shipping, " . . . we do not think an existing industry should be threatened with destruction to make way for a new one."¹ The State General Assembly passed the bill March 31, 1958.²

The oyster arguments, actually introduced as early as 1955, related to the effect of deepening the channel through the oyster beds of the James (between Jamestown and the James River Bridge at Newport News); these beds were considered to be among the best in the world. The questions involved (1) the initial physical damage caused by dredging the channel through the oyster beds, (2) the extent to which the deeper channel would effect salinity of the water in the oyster bed areas, and (3) the degree to which salinity changes would permit invasion by a deadly oyster drill and a fungus disease.³

The first problem, regarding damage to the oyster grounds from dredging operations, was settled relatively

¹News item in The Virginian-Pilot, February 11, 1958.

²An Act to Prohibit . . . the Dredging of the James River . . ., State Senate No. 267, Approved March 12, 1958, by the Senate and March 31, 1958, by the House of Delegates.

³Review Report on James River, Virginia, op. cit., Sec. 23.

easily through recognition that some damage would occur, although the Corps of Engineers promised seafood interests that all possible precautions to minimize this were planned. Further, monetary losses were included in cost considerations, and only 0.35 per cent of the 18,400 acres of public oyster grounds would be lost in the dredging.¹

However, the questions surrounding long-range damage to oyster production that might result from increased-salinity-oriented diseases were cleared up only recently to the apparent satisfaction of all. The hearings had brought vehement debate, but few answers. Although little guarantee of adequate answers on the salinity-disease argument would be given by such tests, it was decided in 1958 that the Corps would hold up the project to permit consideration of a proposal to construct a scale model test of the James River basin at the U. S. Army Corps of Engineers Experiment Station at Vicksburg, Mississippi. The announced purpose of the model would be to determine what would happen to currents and salinity, considered to be "just right" for Virginia's world-famous oyster seed beds.² However, debate on the value of the model study held up even that phase of the review, as well as all State action, until 1964 and did not become conclusive until December, 1966, as discussed in the next section of this chapter. Though other confrontations met efforts to begin

¹Ibid.; and The Virginian-Pilot, December 21, 1966.

²News item in The Virginian-Pilot, August 19, 1958.

work on the project, The Virginian-Pilot reported that in 1958 the only obstacle was the State law forbidding dredging without approval of the Fisheries Commission.¹

Throughout the long preliminary study period of the improvement proposal, the oyster question was considered " . . . a dam in the way of a deep-water channel . . . to the State capital."² Nevertheless, the Army Engineers reported that they had completed their survey in August, 1958; according to a Corps spokesman, "The facts are all in . . . and only await typing up for the report."³

Paramount of the interests supporting the James River Improvement were those cities so situated as to most greatly benefit from the project. In May, 1958, the City of Richmond adopted an ordinance which promised an amazing amount of sponsorship including vast disposal lands, easements, long-range maintenance, assumption of liability for various damages, relocation of utility and road structures, and expansion to provide adequate terminal facilities.

The City of Richmond hereby irrevocably binds itself to do any and all things necessary to perform or execute the assurances given . . .⁴

by the preceding summary.

Though Richmond's capacity to perform all promised by

¹News item in The Virginian-Pilot, November 27, 1960.

²Ibid.

³News item in The Virginian-Pilot, August 19, 1958.

⁴City of Richmond, Virginia, Ordinance No. 58-153-118, adopted May 28, 1958.

the ordinance of 1958 is subject to question, the past record of cooperation in James River Improvement programs spoke well for the effectiveness portrayed in these areas.

The city of Hopewell, by comparison, passed a resolution "in favor" of the plan, but came forth with no promise of tangible support.¹ As indicated by past sponsorship of River programs, Hopewell officials had promised little more than verbal support for the improvement,² although in the area of industrial potential they could anticipate much greater growth than those of the older, more developed river basin at Richmond.

Word of completion of the survey by the Corps of Engineers in August, 1958, and Richmond's enthusiastic attitude apparently gave Virginia Governor J. Lindsay Almond, Jr., considerable encouragement to seek action. In January, 1959, Attorney General Albert S. Harrison, Jr., answered an appeal from the governor for a ruling on the extent and intent of the veto power held by the Virginia Fisheries Commission: "I am of the opinion that the governor can not act upon the application for approval of the improvement until there has been . . . favorable . . . recommendation by the Commission of Fisheries."³ The governor replied that he was " . . . inclined to follow the attorney general's advice."⁴

¹A resolution adopted by the City Council of the City of Hopewell, Virginia, October 14, 1958.

²Review Report on James River, Virginia, op. cit., Secs. 17-19 cite the past cooperation of both cities.

³Cited in The Virginian-Pilot, January 8, 1959.

⁴Cited in The Virginian-Pilot, January 9, 1959.

Debate on the need for a model study on the salinity question continued in 1960. Nevertheless, the Corps of Engineers, having consulted with numerous marine biologists and other experts, reported that to the satisfaction of the Corps a model study was not needed and damage to oysters was not anticipated. They released word that the survey work was completed and that their report would recommend a channel of thirty-five feet (at a cost of \$35 million), with an alternate channel depth of thirty-two feet (at a cost of \$32 million). However, before the report could be made public, they clarified, it was subject to review by the Chief of the Corps of Army Engineers, the Secretary of the Army, the U. S. Board of Rivers and Harbors, and various Congressional Committees (including the Budget Committee).¹

The Corps' Review Report was "made public" by its printing on September 27, 1962, eighteen months after its completion. As finally published, it recommended:

. . . that the authority for the improvement, if and when granted by Congress, shall expire after a period of five years if the governor of Virginia has not endorsed the modified project within that time.²

Anticipating loss of some--but not all--of the petroleum traffic on the James River because of a proposed pipeline, the Review Report also presented a second "benefit-cost ratio" determination for a channel of thirty-five feet, which allowed

¹News item in The Virginian-Pilot, June 24, 1960.

²Review Report on James River, Virginia, op. cit., Sec. 81.

for loss of 60 per cent of the petroleum savings to the pipeline. The adjusted ratio was 1.3 to 1. Early in September, 1962, the Norfolk Ledger-Star stated that because (1) the proposed pipeline would take away the need for the river channel and (2) there were supertankers being developed that would be too large for the channel of even thirty-five feet, a resultant complete failure by tankers to use the channel " . . . might well deal a death blow to Richmond's maritime aspirations."¹ In 1962 giant tankers, some exceeding 100,000 tons, were almost scraping the bottom of Hampton Roads channel of forty feet. More recently, in January, 1967, this potential threat to the usefulness of the improved James was exemplified when two huge vessels had to shift from berths forty feet deep at Newport News to those of forty-five feet at Norfolk in order to complete loading, the latter channels having been deepened only within the previous year. The requirements for very-deep-draft channels arrived some time ago; the preceding were not simply isolated cases. Channel deepening efforts in established ports barely have kept pace with the demands; other reports included arrivals or departures of loaded vessels with drafts of forty-three feet four inches, forty-two feet, and forty-one feet eleven inches. A recent article on a 190,000-ton ship under construction in Europe pictured its propellor, alone twenty-eight feet in

¹News item in the Ledger-Star (Norfolk), September 10, 1962.

diameter.¹

For completeness, the Review Report also showed that a total loss of petroleum traffic on the James would result in transportation savings of only \$1,413,000 with a subsequent benefit-cost ratio of 0.72--less than unity, which is required for justification.²

Tentative approval by the Senate Public Works Committee and the Committee of the Budget for the \$39 million expenditure was granted in September, 1962, subject to endorsement within five years by the governor of Virginia.³

IV. AFTERMATH OF THE 1962 REVIEW REPORT ON JAMES RIVER, VIRGINIA

The Corps of Engineers Review Report triggered considerable rebuttal and counter-rebuttal. Throughout 1962, the availability of the Army Engineers' "long-awaited" recommendations brought on renewed, though few new, arguments. The Virginian-Pilot had aptly referred to the dispute as "squabbling among several branches of the State government."⁴ The squabble grew to include cities, port and industrial authorities, trade associations, unions, and some evidences of

¹Ibid.; and News item in the Ledger-Star, December 10, 1966; January 25, 1967; February 22, 1967; and April 6, 1967.

²Review Report on James River, Virginia, op. cit., Sec. 71.

³News item in The Virginian-Pilot, September 28, 1962.

⁴News item in The Virginian-Pilot, August 19, 1958.

disgruntlement toward Virginian resistance was implied by the Corps of Engineers. The District Engineers Office stated:

The single greatest potential advantage in deepening the James . . . is the attraction it would become for many industries that are always looking for deep-water. But you don't have to look that far ahead to see substantial progress in the development of the James¹ . . . If there were any economic loss to Hampton Roads, it would be offset in a net gain to the entire State.²

Irvine R. Smith, Mayor of Portsmouth, in 1962 reflected on the alarm with which Hampton Roads initially viewed the opening of the St. Lawrence Seaway. He observed the apparent total lack of damage to Hampton Roads' port business with a general national benefit. Comparatively, he anticipated that the James improvement would be a help to Virginia through a better competitive position with North Carolina, also without adverse effects on Hampton Roads.³

The Hampton Roads longshore unions adopted a resolution of opposition in October, 1962, outlining the following:

1. The facilities in Hampton Roads were operating at only sixty per cent of capacity with more new facilities under construction.
2. Trade diversion would "reduce the prestige" of Hampton Roads as one of the world's great ports.
3. Cargo diversion to Richmond would lead to unemployment.
4. The great cost of dredging the James would take money needed in Hampton Roads.
5. Fresh water of the James was needed by Virginia.⁴

¹News item in the Ledger-Star, July 19, 1962. The latter reference is to the benefits-cost advantage.

²News item in the Ledger-Star, September 20, 1962.

³News item in the Ledger-Star, October 9, 1962.

⁴News item in the Ledger-Star, October 31, 1962.

Presumably, item five referred to potential pollution of the river by industry and shipping. Much of the statistical portion of the resolution had been reported earlier by Norfolk State Senator Edward L. Breedon and the Norfolk Marine Terminal Association.¹

Among the "success stories" of other river ports prevailing in the argumentation in 1962 were the cases of the Ports of Houston, Texas, located in the center of great natural petroleum resources, and the Delaware River, within the nation's largest population area. According to James N. Crumbley, representing the Norfolk Port and Industrial Authority, these examples were being over-emphasized, for "Richmond and the James River basin can boast neither of these."² This should have suggested a need for more quantitative analysis of the developmental issue, rather than limiting it to the exploitative aspects of federal benefit-cost criteria.³ Neither Crumbley nor the Review Report specifically placed much emphasis on the developmental values of the James, although all surely recognized this as perhaps the greatest question relative to the potential of the James basin.

¹News item in the Ledger-Star, September 4, 1962.

²News item in the Ledger-Star, November 8, 1962.

³See Lansing, op. cit., citing H. Jerome Cranmer's Studies in Income and Wealth, Vol. 24 (Princeton University Press, 1960), p. 559. Cranmer distinguished between "developmental" and "exploitative" canals; the former were intended to stimulate economic birth in a region, the latter were provided to glean profits from already-developed areas.

The Hampton Roads Maritime Association (HRMA) in earlier hearings had nobly supported the James River improvement as a good thing for Virginia. But in September, 1962, a representative of the HRMA reported:

Thorough study and re-evaluation of the economic impact of the proposed deepening . . . upon the Hampton Roads area should be made for the Association's guidance as to its future attitude toward this project.¹

This reflected a definite middling-of-the-road on the part of this Hampton Roads organization (see page 58). In October, 1962, the HRMA stated that the Corps of Engineers had failed to consider "three negative aspects":

1. Besides the "benefits", there would be cargo losses to Hampton Roads.
2. Adverse effects on the State's valuable seafood industry.
3. No new commerce would be created by the channel-deepening; therefore, any commerce gained upriver would be diversion from Hampton Roads.²

It appeared that the Hampton Roads Maritime Association finally had begun to review some very old reports on this issue!

Donald C. Hill, Chief Engineer for the Virginia State Ports Authority, reported in October, 1962:

The proposal . . . has divided the people of Virginia . . . We're not interested so much in the Port of Norfolk, or the Port of Newport News, or the Port of Richmond. We're interested in the ports of Virginia.³

Speaking at a civic organization meeting in Norfolk, Mr. Hill

¹News item in the Ledger-Star, October 27, 1962.

²Ibid.

³Cited in The Virginian-Pilot, October 18, 1962.

cited the example of the development of Houston as a deep-water port. Questioned as to what happened to Galveston, past which the Houston canal runs, he stated that Galveston was ruined--but, Galveston had never been a natural port. "We [the proponents] will not take any trade from the rest of Virginia. We will take some from Baltimore and New York," he advocated.¹

On the industrial question, The Richmond News Leader reported that although the newspaper had no desire to see the Tidewater country converted into another Ruhr Valley, " . . . we do feel that a wider and deeper James would open up areas for desirable new industry."²

The Ledger-Star in August, 1962, summarized the contents of a letter to the City Council (Norfolk), recommending the opposition of the Norfolk Port and Industrial Authority for adoption by the Council. The letter stressed eight "economic" points:

1. The benefits-cost ratio of the Review Report is marginal and will become sub-marginal with construction of the proposed pipeline.
2. No net economic gain would be realized by the State insofar as additional cargo is concerned.
3. A deep-water port at Richmond would deal a fatal effect on many small towing and barge companies

¹Ibid.

²Cited in Ledger-Star, August 17, 1962.

engaged in James River service.

4. Revenue by rail and truck lines (between Richmond and Hampton Roads) would be cut by diversion of River traffic to large ships.
5. The trade territory that would use Richmond would develop at the expense of Hampton Roads.
6. Millions of dollars have been invested to develop the State's "primary ports."
7. It is doubtful that a thirty-five foot channel would be adequate for heavy industry requirements.
8. Construction and maintenance of the deeper channel would compete for funds available to the Norfolk District.¹

Motivation in the above, as in most Hampton Roads, opposition was quite obvious. Nevertheless, items one and seven deserved more consideration than they have received to date.

Another of the early reports issued on the heels of the 1962 Review Report was published April 1, 1963, and presented the results of a relatively professional study conducted for the Norfolk Marine Terminal Association (NMTA)--a strong opponent of the improvement--by three faculty members of the College of William and Mary. This report², seeking to

¹News item in the Ledger-Star, August 29, 1962.

²Charles L. Quittmeyer, Anthony L. Sancetta, and Robert L. Knox, Some Economic Consequences of a 35-foot Channel to Richmond--Concerning Diversion of Traffic, Costs and Benefits, and Port Sites (Norfolk: Norfolk Marine Terminal Association, 1963).

show why the Project improvement was not justified, first surveyed 104 executives of port-oriented firms in the Hampton Roads area on the probable effect the channel would have on the wages and salaries, employment, and revenue of their firms. Their conclusions in this area quantitatively parallel much of the Hampton Roads-oriented response received in a recent survey conducted for this report.¹ Briefly, the report concluded from the survey that the medium-range effects² on Hampton Roads would be a loss through freight diversion of \$45 million in revenues, a loss of \$22 million in wages, and a loss of 5100 jobs. The report recommended that, although not a net loss to the State, this "economic dislocation in the Hampton Roads area with attendant problems . . ." should be weighed against a benefit-cost ratio realistically below 1.1.³

The second question taken up in the NMTA study was a re-analysis of the "benefit-cost ratio" of the Review Report. The latter had included in their study a benefit-cost ratio which anticipated adjustment should the then-proposed petroleum pipeline be provided to Richmond. The Corps' adjusted ratio was 1.3, omitting sixty per cent of savings on petroleum transportation costs. However, the NMTA report was conducted during construction of the pipeline, completion of

¹Section V, this chapter.

²Medium-range was defined as ten years after completion of the improvement.

³Quittmeyer, Sancetta, and Knox, op. cit., Sec. C.

which immediately invalidated the 2.2-to-1 ratio, discussed in the first section of this chapter. The NMTA study further pointed up that Federal cost-benefit ratio analysis ignores where diversion occurs, although such point of diversion is of great significance to those firms and ports involved. Relative to the measurable benefits to the State of Virginia as a whole, the NMTA contended that a total of \$289,610 in transportation savings reported by the Corps would be through diversions from Hampton Roads and should not be included in benefits to the State. Combining this with the fact that the pipeline could handle eighty per cent of the petroleum needs of Richmond, they contended that the final benefit would drop to \$2,271,390.¹

Regarding costs, the NMTA study entirely refuted the 2 5/8 per cent interest rate applied to the Federal investment, explaining that the fifty-year-life basis for the improvement required use of a rate of at least 3 7/8 per cent, if not four. The report alleged that the actual cost to the government would be based on the higher rates applied to long-term maturities, instead of the average cost of Federal bonds of maturities between fifteen and fifty years. Applying the 3 7/8 per cent rate, the report concluded that net cost (annual charges) for the improvement would approximate \$2,485,400 with a benefit-cost ratio calculated as follows:²

¹ Ibid., Sec. D.

² Ibid.

$$\frac{\text{Net Benefits}}{\text{Net Costs}} = \frac{\$2,271,390}{\$2,485,400} = 0.91$$

The NMTA's final argument was that, although the question of industrial site needs was not specifically mentioned by the Review Report, considerable emphasis had been placed on this "benefit" of the project--an implication "without evidence" that there was a lack of deep-water sites in the Hampton Roads area. Listing several large sites, the report concluded:

1. Any assumption that the Hampton Roads area is devoid of industrial sites appropriate for large-scale industrial development is incorrect.
2. There exist a sufficient number of sites which have deep-water frontage, making them attractive to port-oriented industries.¹

However, one of the final remarks of the NMTA report stated: "Admittedly, these sites constitute a short-run situation."²

One organization which had mentioned the "alleged" site deficiencies was the Peninsula Port and Industrial Authority. Primarily responsible for development on the north side of Hampton Roads, this authority stated early in 1962 that "many requests for sites on deep-water were turned away because sites were not available."³ This was an example of lack of concurrence between two Hampton Roads organizations.

Rebuttal to the NMTA's report came from several proponents of the improvement. Frank A. Ernst, Chairman of the

¹Ibid., Sec. E.

²Ibid.

³News item in The Virginian-Pilot, January 27, 1962.

Virginia Ports Authority, cited cases where industrialists had sought in vain for sites in Tidewater, Virginia, with ample fresh water, adequate highway and rail access, and deep-water navigation. The Hampton Roads sites did not offer sufficient fresh water, and those on the James River did not offer efficient navigation.¹

The Corps of Engineers defended the interest rate applied as that rate provided by the Treasury Department as an average cost of managing a portion of the Federal debt. The same rate was used in other public works studies, including several which had justified improvements to the channels of Hampton Roads. Relative to the savings benefits, the spokesman for the Corps stated:

If you can do something cheaper by method A than you can by method B, we figure that as favorable to method A The purpose of the public works program was to foster efficient use of natural resources. Benefits credited to a project are anything that increases efficiency of a resource's use.²

Though someone may get hurt, "the long-run national interest is served," he said.³

The NMTA also had solicited changes of views by early proponents. One reply from the American Merchant Marine Institute, Inc. (AMMI), in January of 1963 agreed that perhaps the deepening should be re-evaluated in view of the effect of a petroleum products pipeline to Virginia. However,

¹News item in The Virginian-Pilot, February 9, 1963.

²Ibid.

³Ibid.

the AMMI reaffirmed their position, a matter of record, that there was an acute need for eliminating or considerably reducing navigation difficulties and hazards on the James. Specifically, widening the channel, easing bends, providing a mooring basin at Hopewell, and enlarging the turning basin at Richmond Deep Water Terminal were still advisable.¹

The Governor's James River Study Commission (Commission) was established in March, 1962, by the Virginia General Assembly. Its seven members were appointed in June, 1962, and were instructed to present their findings to the governor in November, 1963, for consideration by the 1964 General Assembly.

The Study Commission received and reviewed reports and commentary from over 150 firms and individuals. Little new in concept developed; most presentations were along the same lines already discussed. Among "new evidence" presented was a report by B. W. Miller, Jr., Richmond harbor master, that at least a half-dozen firms had decided against riverside sites because the present channel was only twenty-five feet deep.² At the second hearing of the Commission, an appeal for "Total Study" was made by a spokesman of the Peninsula Committee for Parks and Planning (north side of Hampton Roads). Mrs.

¹Letter from the American Merchant Marine Institute, Inc., New York, in reply to Mr. E. E. Ball, Chairman, Norfolk Marine Terminal Association, January 25, 1963.

²News item in the Ledger-Star, August 17, 1962.

Sandridge Evans stated:

The problem you [the Commission] are being asked to judge seems to us a single-project, single-purpose, single-agency proposal . . . several generations old in its thinking We must seek a proper balance in all rather than some of our plans.¹

Retired seaman A. B. Butterworth at the same hearing told the Commission:

We should be fair and honest about this matter Facts and history have taught us Americans that retarding progress for a fallacy should have no place in our scheme of things.²

The oyster question and an insistance for a scale model study of the James to be conducted at Vicksburg was re-emphasized. Mr. Donald C. Hill, Virginia State Ports Authority, reported that although it had not been widely publicized, model test data would be of little value to the oyster mystery. Nevertheless, opponents insisted it would produce conclusive salinity-change data that would help determine the answers being sought.³

The Virginian-Pilot in December, 1962, reported that the Commission had collected all its data and forecasted that the report to follow would recommend further studies, whether or not it favored the deepening.⁴ Three days before, the paper had described the questions facing the Commission as follows:

¹Cited in The Virginian-Pilot, September 6, 1962.

²Ibid.

³News item in The Virginian-Pilot, December 26, 1962.

⁴Ibid.

One river cruise, five public hearings, one scientific conference, and one field trip later, the committee found the job [of evaluating oysters versus trade and industry] about as simple as picking up an oyster with your elbow.¹

Though the "data was in" by the end of December, the Commission "studied" the problem through much of 1963. As late as September, 1963, a closed door session was held with John G. Mackin, head of the biology department at Texas A. and M. and an acknowledged expert on oyster diseases. Mackin presented data disputing claims that previous dredging of the James had damaged the seed beds. The records he produced showed that seed oyster hauls from the James had actually increased following previous deepenings.²

Shortly before the Study Commission issued its report, The Virginian-Pilot presented the stand of Mrs. Gladys L. Fraser, a Hampton Roads candidate for the House of Delegates:

The deep-channel plan "is not a spur-of-the-moment decision [but] a carefully thought out plan to cut short our industry and build up the empire of the [Byrd] organization To openly permit . . . ocean traffic that still enters our port to be switched to the warehouses and railhead of Richmond would be to permit our wharves to rot away and our business to dwindle to the scraps and leavings of . . . Richmond and the north This plan is insidious and disastrous to every citizen of our community."³

Soon after Mrs. Fraser's profound remarks, Norfolk Delegate Bernard Levin frankly and honestly expressed the general position of Norfolk:

¹Hill, Donald C., "James Fight Only Thing That's Sure," The Virginian-Pilot, December 23, 1962.

²News item in The Virginian-Pilot, September 25, 1963.

³Cited in The Virginian-Pilot, September 27, 1963. This reads like Wertenbaker in his citations of the Norfolk newspapers of the 1800's.

The Norfolk delegation is politically obligated to oppose the channel because of Norfolk's interest in it.¹

At last someone was straight forward enough to admit why they opposed without the camouflage of oyster shells, etc!

The James River Study Commission published and presented to the governor its report in November, 1963, as instructed. Of the seven members of the Commission, only Marvin L. Armory of Hampton failed to join the majority, which concluded that both Hopewell and Richmond could be made deep-water inland ports without impairing the port business of Hampton Roads or materially damaging the valuable seed oysters.² The Commission's recommendations were as follows:

1. A hydraulic model should not be constructed, since only sixty-five of 18,400 acres of public oyster grounds would be lost to dredging operations and methods to prevent siltation in seed bed areas would be employed. Claims of oyster bed destruction by previous dredging were not verified; available evidence indicated the seed beds were not affected. Cost of the scale model study would be \$300,000 and three years in time and would not answer questions on oyster damage.
2. The power of the Fisheries Commission to veto dredging in the James should be repealed.

¹News item in The Virginian-Pilot, December 11, 1963.

²Deepening the James River Channel, (Virginia) Senate Document No. 13 (Richmond: Commonwealth of Virginia, 1963), p. 10.

3. The consideration of permitting Richmond the authority to cooperate with the U. S. government and to give other assurances needed should be made without delay.

The report further concluded that cargoes likely to go to Richmond and Hopewell would be bulk commodities which would not require transshipment in the Hampton Roads area. Further, the fears of those in Hampton Roads that efforts to attract new port business might be impaired " . . . in our opinion . . . are groundless."¹

Mr. Armory's statement, presented in the report, vehemently denounced the majority findings as incomplete, charging that to go ahead with the improvement without a model study would be "capricious and irresponsible . . . Virginia will be throwing away a valuable economic resource [oysters] for the mirage of a possible Ruhr along the James River."² He further called for a huge appropriation to support the oystermen for many years in the event the majority proposal was adopted. "I see no merit to spreading an already too small port business among more ports," he said.³

Nevertheless, the Commission urged expediency in getting the project under way. One newspaper, indicating the governor would be committed to the findings of the Commission, anticipated sponsorship by the administration of legislation to push for approval in the General Assembly. The prime obstacle

¹Ibid., pp. 7-10.

²Ibid., pp. 15, 16.

³Ibid., p. 15.

would be removal of the veto power of the Fisheries Commission, which had to be approved by the House Committee on the Chesapeake and its Tributaries, heavily dominated by oyster interests. An alternate was to dismiss that Committee, though this was reported as a very unpopular, last resort.¹ Norfolk Delegate Bernard Levin indicated all but one or two of the thirteen members of the committee were expected to oppose a deeper James.² The Ledger-Star stated that " . . . the whole business is emished [sic.] in so much politics it has become a very touchy subject."³ The Star generously called the report of the Commission " . . . one impressive verdict," stating of the findings:

Judgement was fair and responsible This newspaper is already on record against the kind of Tidewater opposition which springs purely from fear that Hampton Roads shipping will be diverted upstream. The industrial development of the hinterland served by the James ought to command more attention than any sectional interest.⁴

Nevertheless, the editorial indicated, "There's no tearing rush Indeed, the extra time [for further study] could be profitably used to update the whole range of information."⁵

Governor Albertis S. Harrison, having declared himself prochannel, asked the General Assembly to return the

¹News item in The Virginian-Pilot, December 11, 1963.

²Ibid.

³News item in the Ledger-Star, January 30, 1964.

⁴News item in the Ledger-Star (an editorial), January 29, 1964.

⁵Ibid.

channel approval power to him in January, 1964, through a bill introduced by "his cohorts in the Senate."¹ As anticipated, the bill was held up in the House Committee, but in February a compromise was reached. The veto power was removed from the Fisheries Commission. However, dredging in the James between Jamestown Island and James River Bridge (oyster area) could not be authorized by the governor until he received advisory reports from (1) The Virginia Institute of Marine Science, (2) The State Water Control Board, (3) The Commission of Fisheries, (4) The Commission of Game and Inland Fisheries, (5) The Board of Conservation and Economic Development, (6) The Virginia State Ports Authority, and (7) The State Highway Commission, plus the formal consent of the General Assembly. All advisory reports had to be made by August 1, 1967, to be transmitted by the governor to the next regular or special session of the General Assembly. Approval of both chambers of the General Assembly was needed to begin work; failure to act on the question by either or both houses would be deemed granting of consent.² A grant of \$300,000 was to be made to the Fisheries Commission for "research" on possible oyster damage. This could include the time-consuming, contraversial model study, though not specifically.³

¹ News items in The Virginian-Pilot, January 10, 1964; and Lodger-Star, January 30, 1964.

² Reported in The Virginian-Pilot, February 12, 1964.

³ Ibid.

The net result of this legislation, besides more study, was another delay of at least three and one-half years.¹ As a result, the remainder of 1964, 1965, and most of 1966 presented relatively little on the issue. Though some of the studies called for by the 1964 legislation were begun, the development of these studies received little attention until late in 1966. The pipeline to Richmond was completed in the fall of 1964, and Humble Oil Company, alone, announced plans to transfer ninety per cent of their Richmond-bound petroleum products from River transportation to the pipeline. The Corps of Army Engineers reported that their anticipated new review of the project would uncover new unevaluated benefits, benefits in areas not requiring previous evaluation.²

The Corps joined the Virginia Institute of Marine Science in co-sponsorship of the model study, which inevitably began in August, 1964, under the title "Crash Operation James River." The Corps, who had never considered the model study imperative to the immediate question, justified this co-sponsorship because of potential value to their interests in future programs.³ Although the Corps of Engineers advocated a lack of threat to the oyster beds, one of the conditions of the project was that others assume responsibility for any damages resulting from the work.⁴ Perhaps this was the

¹Ibid.

²News item in The Virginian-Pilot, August 26, 1964.

³News item in The Virginian-Pilot, August 26, 1964.

⁴Review Report on James River, Virginia, op. cit., Sec. 81.

reason the Virginia State Fisheries Commission so firmly insisted that their interests be proved secure, which finally led in 1964 to the political compromise that, in turn, led to the model study.

The second study was conducted by the Virginia Marine Institute to determine the effects of the model-determined salinity changes on marine life in the James. These two studies, costing \$680,000 and authorized in 1964 "struck down fears of the seafood industry"--which fears had been called the major source of opposition to the improvement--by concluding "that changes the project would make on the river bottom would not effect currents or salinity enough to bother oysters or other mainer [sic--"marine"] life."¹

Although the model study and subsequent studies will serve greatly in future problem reviews of the River by many federal, state, and local government bodies, it confirmed in December, 1966, that the fears of the oystermen had been wrong. It was considered by many advocates of the improvement to have been "in the nature of an extravagant stall to the dredging."²

Vice-mayor of Richmond Phil J. Bagley said in December, 1966, that the project " . . . died when Vaughan Gary retired from U. S. Congress, yielding seniority there to Porter Hardy,

¹News item in The Virginian-Pilot, December 21, 1966

²News item in The Virginian-Pilot, February 1, 1967; and February 12, 1967.

the congressman from Norfolk."¹ Gary had led the early project study without opposition. Bagley stated:

The oysters were just a [political] red herring Anyone would have to be politically naive to expect any action with Porter Hardy blocking the financial bridge across the Potomac.²

Bagley implied that since the oyster question was resolved, Norfolk's representative would find a new stop-gap for the project. In reply Representative Hardy stated: "There is a question of economic justification,"³ since the provision of the petroleum line. The remaining question became clear: Had Hardy found his new political "herring," or would other factors influence his stand?

V. SELECTIVE OPINION SURVEY ON THE PROPOSED JAMES RIVER PROJECT IMPROVEMENT⁴

January 23, 1967, a survey form and cover letter were mailed to a selective sampling of seventy-two parties believed to be effected by or familiar with the James River Improvement. A pre-addressed, stamped return envelope was enclosed. Six of these were eliminated from the sampling because of duplication or newspapers, the latter in which ample information, including opinions, was to be found. Therefore, a net sampling of sixty-six parties was considered

¹Cited in Ledger-Star, December 22, 1966.

²Ibid.

³Ibid.

⁴See "Appendix" for exhibits.

to be the base of the survey.

Initial response by early March was from twenty-six (forty-one per cent) of those questioned. March 13, 1967, a follow-up letter, accompanied by another survey form, a copy of the original letter of explanation, and pre-addressed stamped envelope, was forwarded to the thirty-nine parties which had not yet responded. Of these, twelve were returned for a follow-up response of thirty-one per cent. The overall response in the survey was thirty-nine acknowledgements, or fifty-nine per cent. A second follow-up was judged to be of little further value.

Of the thirty-nine parties responding, twenty-four completed the form, three felt they could not complete the form (per se) but volunteered assistance in the form of reports or additional information sources, and twelve returned the blank survey form with or without regrets that they were unable to comment because of lack of qualifications or authority.

Of those solicited, twenty-three were representatives of Hampton Roads interests, five of Richmond interests, twenty-seven had interest in both Hampton Roads and Richmond, and two were classified as being specifically oriented toward neither location, such as in the case of one federal agency and one of the State Senators. Nine parties were not so classified as to the locale of their concern, primarily because lack of response presented no clue to their loyalties.¹ The preceding

¹Quotations by individuals are not footnoted here to honor the statement on this in the survey cover letter. Statements are in the possession of the writer.

was summarized in Table VII.

The primary designs of the inquiry were (1) to locate information sources, (2) to obtain fresh, first-hand viewpoints, and (3) to evaluate opinions relative to the subject. As indicated under "additional information" in Table VII, this goal was achieved to a reasonable degree. Of those responding, most gave interesting explanations for their responses or indicated additional available reports related to the subject.

A total of eleven Virginia State Senators were included in the sample; four representing the Richmond-Hopewell area, six representing Hampton Roads cities, and one from south-central Virginia. Three from Hampton Roads and two from the Richmond area failed to acknowledge the letter, two from Hampton Roads felt they were "unqualified to answer," and another returned a blank survey with no explanation, as determined by a code number placed on each mailed form. Therefore, only three of eleven State Senators volunteered comment. One of these, representing the City of Richmond and a member of the Port of Richmond Advisory Commission, explained in his reply that the:

. . . trifling traffic loss to Richmond would be more than offset by strengthening the general economy of Virginia, especially the Richmond, Petersburg, Hopewell complex. Richmond could never compete with Hampton Roads as a major general cargo seaport.

He indicated that the James River Improvement is necessary for the advancement of Virginia. Further, he reported that the Port of Richmond Advisory Commission had done extensive

TABLE VII
 SAMPLE AND EXTENT OF RESPONSE TO OPINION SURVEY
 JAMES RIVER CHANNEL IMPROVEMENT
 1967

Class and Number of Sample	Significance of Representation or Location*			Response			Survey Completed	"Unable to Answer"	Additional Information Given
	Hampton Roads	Richmond Area	(B)oth or (N)either	Initial	Follow-up	Neither			

Virginia State Senators:

1	X				X			X	
2	X					X			
3	X				X			X	
4	X			X				X	
5	X					X			
6	X					X			
7			N	X			X		
8		X				X			
9		X		X			X		X
10		X		X			X		X
11		X				X			

Other Governments, Port
 Authorities, etc.:

12			N	X				X	X
13	X					X			
14	X					X			
15	X				X			X	
16	X			X			X		X
17	X			X			X		X
18	X			X			X		X
19			B			X			
20			B	X				X	X

Terminal Corporations:

21	X			X			X		X
22	X					X			
23	X					X			
24	X					X			

*"Both" or "Neither" would indicate little or no bias by responding party.

TABLE VII (continued)

Class and Number of Sample	Significance of Representation or Location*			Response			Survey Completed	Unable to Answer	Additional Information Given
	Hampton Roads	Richmond Area	(B)oth or (N)either	Initial	Follow-up	Neither			

Terminal Corps. (cont.)

25 X X

Educators--Old Dominion
College, Norfolk:

26 B X X X
 27 B X X
 28 B X
 29 B X
 30 B X
 31 B X
 32 B X

Shipping Agencies:

33 NA X
 34 NA X
 35 NA X X
 36 B X X
 37 X X
 38 X X
 39 B X X
 40 X X
 41 NA X
 42 NA X
 43 X X
 44 B X
 45 B X
 46 B X
 47 NA X
 48 B X
 49 B X
 50 NA X
 51 NA X
 52 NA X
 53 NA X

TABLE VII (continued)

Class and Number of Sample	Significance of Representation or Location*			Response			Survey Completed	"Unable to Answer"	Additional Information Given
	Hampton Roads	Richmond Area	(B)oth or (N)either	Initial	Follow-up	Neither			
<u>Railroads:</u>									
54			B	X				X	
55			B			X			
56			B			X			
57			B	X				X	
58 X				X			X		X
59			B			X			
60		NA				X			
<u>Banks:</u>									
61 X					X		X		
62			B	X				X	
63			B	X			X		
64			B	X			X		
65			B	X			X		
<u>Miscellaneous:</u>									
66 X				X				X	

study to reassure itself of the feasibility of the improvement.

A second State Senator, representing an area north of Richmond, stated that he felt the improvement would divert cargo handled at Hampton Roads to Richmond, thereby reducing "the stand of Hampton Roads Port." Though the project may benefit Richmond and Virginia, it would be at the expense of Hampton Roads and project funds could be better spent by investment there. Present transportation facilities serving between Hampton Roads and the remainder of Virginia markets would suffer, he added, stating that "We have the second best port on the East Coast, and to create an inland port would be detrimental in this regard." He reported that the James at Richmond does not have adequate harbor area for large ships, and such navigation would be "troublesome." Finally, he indicated that advancement of Virginia trade would not necessitate the improvement.

The Senator representing an area south of the James and Appomattox Rivers was of the opinion that no effect on Virginia would result from the improvement, and only little possible detriment to Hampton Roads ports would develop from diversion of traffic.

The general lack of response from Senators from the areas directly involved by this subject is particularly discouraging.

The second category of the sample was "Other Governmental Agencies, Port Authorities, etc." Here were included

eight industrial, port, and developmental authorities and the Corps of Army Engineers (discussed in preceding sections). Five of these responded. The Hampton Roads Maritime Association--a very interested party, one would assume--answered through their law firm that " . . . we do not feel we can answer the questions posed inasmuch as our Board of Directors has taken no position on this project." Perhaps they had forgotten the statements of their representative at a public hearing held December 15, 1955:

. . . the proposed improvement will not only greatly benefit the Richmond-Hopewell area, but would advance the economic interest of the State of Virginia. He pointed out that the lower James River basin would be opened to extensive industrial development, sites for which are not available in the Hampton Roads area.¹

Perhaps, too, the HRMA had reason to hope their change of heart in September, 1962, would be forgotten.

Other authorities in this category included the Virginia State Ports Authority, which volunteered assistance, but felt they could not answer the survey without considerable qualifications. The pro-improvement views of the VSPA were discussed in previous sections.

A spokesman for the Peninsula Ports Authority of Virginia, representing interests on the north side of Hampton Roads, indicated a belief that though the improvement would be favorable to Richmond it would be detrimental to Hampton Roads because of "fragmentation of port development within

¹Citing Review Report on James River, Virginia, op. cit., Sec. 23.

the State" and through "diversion of business and available State funds for facilities." His organization has opposed and planned to continue to oppose the project at public hearings.

A representative of the Norfolk Port and Industrial Authority stated that the River improvement would have no effect on the progress of Virginia, but would help Richmond at a loss to Hampton Roads. He emphasized that the economic justification for the project was gone,¹ requiring re-evaluation of this justification before funds could be provided.²

According to the survey, representatives of the Tidewater Virginia Development Council (TVDC) felt that traffic passing through Hampton Roads en route to James River ports of call would benefit Hampton Roads through generation of additional business there and increased awareness of the Tidewater area on the part of shippers and shipping companies. Though he did not indicate a necessity for the improvement for the realization of growth, he agreed that the project would aid Virginia, as well as Richmond. The official position of the Council was presented in a copy of TVDC's proposal to Governor Mills Godwin (Virginia) for a dam on the James in favor of a portion of the dredging.³

¹As a result of the petroleum pipeline now supplying Richmond.

²This requirement for re-evaluation was confirmed by letter from Mr. C. J. Robin, Chief of the Engineering Division, Norfolk District, Corps of Army Engineers, January 27, 1967.

³See the end of this Chapter, Section VI.

Of five ship terminal operators solicited by the survey, comprising four in the Hampton Roads area and the only one in Richmond, one returned the completed form. Located in Hampton Roads, this operator expressed belief that his business and the port would lose through diversion of cargo to Richmond. It was his opinion that simple diversion would ensue and the net trade of Virginia would remain unaffected. Expressing a desire to have more time to devote to the question, he indicated his efforts would endeavor to prevent the River improvement through educational and political means by pointing out "the negative economic effects and . . . the importance of recognition of the factor of 'diversion'."

Seven educators of Old Dominion College (Norfolk) were included in the sample, primarily in hopes of obtaining unbiased and well-based responses. Of the seven, four were oriented in history, two in political science, and one in economics. Four responded, of which one was "unable to answer" and one expressed a "vague awareness" of the project, though he did remark, "obviously--the more ports, the more trade." The logic behind that conclusion was not pursued further. Of the others completing the survey, all indicated the River improvement would aid Hampton Roads by bringing more traffic to the port; and all indicated an anticipation of improved export-import trade to Virginia through increased port commerce for the entire area.

The largest group surveyed, comprising twenty-one "Shipping Agencies," brought thirteen returns, of which four

were "unable to answer." Of the nine completing the form, it was interesting to note that seven operated offices or performed their services throughout Virginia. It was decided that the criteria for discussion of these would be to group them by area served, relative to Virginia-located offices.

The two responding firms designated as operating exclusively in Hampton Roads were not entirely biased in their answers. Both, however, indicated that their business and Hampton Roads would suffer through diversion of cargo unloading for western Virginia. There was disagreement that the improvement would aid Virginia's overall trade picture, one indicating that division of effort in solicitation of trade would result in a decrease in the number of vessels calling at Virginia ports, while the other felt both Virginia and Richmond would benefit with a loss to Hampton Roads. Both agreed that such expenditures would better serve Virginia if placed in Hampton Roads improvements. One expressed hopes of preventing the project through the "regular channels of the Hampton Roads Maritime Association," apparently unaware that the HRMA planned no such efforts in his behalf according to their letter of March 29, 1967.

The seven shipping agencies serving both the ports of Hampton Roads and Richmond were almost evenly divided as to the effect of the improvement on their business. Of the two expecting increased business, one explained a general increase in Virginia trade would help it; the second foresaw increased

traffic through his branch office in Richmond. Of three anticipating no effect, two felt their firms would handle the same cargo through either of the two ports, and the third reported that his location of the firm in Hampton Roads handled coal in very-deep-draft vessels (exceeding drafts of thirty-one feet) and, therefore, would continue to handle the same traffic. The two indicating a harmful effect on their businesses from the project suggested the added cost of "scattered operations" in one case; the other considered the proposal to be "misuse of Virginia State funds which should be directed to the development of present Hampton Roads facilities."

Five of these seven agencies indicated a harmful effect on Hampton Roads would ensue because of diversion of freight loading and unloading to Richmond, but also through thinner spreading of available state funds. One agent specified that the Richmond tobacco products now carried to Hampton Roads for export loading would be exported directly from Richmond instead; this would have implied a justification for the improvement in terms of Federal evaluation. One agency advocated that an improvement for Hampton Roads trade would result over the long-run through increased traffic, while another could see no reason why ships calling at Richmond would bypass Hampton Roads.

Regarding the long-range effects on Hampton Roads, one agent described a retardation of "the over-all development of industry in Virginia including progress of inland [i.e., over-land] carriers through excessive expenditures in [the] wrong

direction." A second expected no effect, while five suggested improvement to Virginia's trade development through (1) preferential freight rates on cargo going to the interior, (2) resultant growth of heavy industry--"the backbone to major port progress," (3) diversion to Richmond of cargoes bound from western Virginia for Baltimore export due to lower inland freight rates and equivalent ocean freight rates, and (4) diversion to Richmond of "much cargo from North Carolina presently being shipped through Morehead City."

Three of the agencies serving both ports felt the expenditure proposed for the improvement of the James would better aid Virginia by more Hampton Roads development. Two considered the improvement to be necessary for the advancement of Virginia. One thought possibly only the port of Alexandria would suffer, though Virginia in general would be helped. One re-emphasized that raw materials would be imported to plants along the James, and resultant products would be exported, to the benefit of all. As an additional comment, one agent stressed that present facilities in Richmond "are quite inadequate and . . . would require additional State funds for modernization."

Seven railroads were included in the survey sampling, and though three responded, only one--which serves Hampton Roads, but not Richmond-- completed the form. This lack of response or comment was believed to be based on the fact that both ports were served by each of the lines declining comment; perhaps there was fear of repercussions from answers against

either side. The responding railroad executive indicated a belief that if industry developed as a result of the project, his business could be helped, but if the result was diversion of traffic, this would be harmful. He doubted that bulk cargo would be diverted and this, combined with an assumption that James River industrial development would involve handling of river-side cargoes only, would have little effect on Hampton Roads port business. He was of the opinion that new industry resulting from the improvement would provide a net benefit to both Richmond and Virginia, however.

All forms were returned from five banks surveyed; four of these were completed. An executive of a bank serving lower Tidewater (Hampton Roads) felt the improvement would hurt his business through a harmful impact on shipping in Hampton Roads. He anticipated little effect on Virginia's trade level, preferring the expenditure on Hampton Roads improvement in lieu of the James.

The other three banks served the entire State of Virginia. A representative of one, from a branch office in Richmond, indicated only slight anticipations from the project, explaining little knowledge on the subject. A second banking executive from Richmond briefly answered in whole-hearted support of the improvement; he expected slightly increased business in his foreign department, increased trade for both the State and Hampton Roads, and the satisfying of a need relative to the advancement of Virginia's trade.

The third banker, an international banking executive,

indicated that he could see no effect on his business, the port of Hampton Roads, nor the State of Virginia from the improvement, explaining that such past efforts for development of Richmond into an ocean port were founded in a dream of Richmond interests who have never adequately utilized the available channel, even when it was deep enough to handle the largest ships in use at the time. He stated, "With the development of containerization, there will be less incentive for ships to make the additional journey from Hampton Roads to Richmond." This was based on the fact that container principles require a minimum number of brief stops--usually not more than two--on each end of their journey. Further, he added that the \$40 million figure will have to be greatly adjusted upward to reflect current costs.

The final participant in the survey stated that he was unable to comment because he was new to the area and unfamiliar with the proposal.

A summary of the preceding pros and cons was presented in Table VIII.

One feature noted in the results of the survey was the fact that of those who felt their business would be hurt by the James River Improvement, there was an apparent 100 per cent correlation with their general opposition toward the improvement; of those who would expect improved business, an apparent 100 per cent correlation in their general support of the project existed. Of those who indicated there would be no effect upon their business, six favored and six opposed, in

TABLE VIII
MAJOR OPINIONS FAVORING AND OPPOSING
JAMES RIVER IMPROVEMENT
1967 SURVEY

Arguments in favor:

1. Economic justification--Benefit-cost ratio exceeds unity.
2. Strengthen Virginia's economy, particularly Richmond, Petersburg, and Hopewell area.
3. Insignificant diversion of traffic from Hampton Roads with a long-range increase in Hampton Roads traffic.
4. Lower James River Basin would be opened to extensive industrial development; adequate waterfront sites are no longer available at Hampton Roads.
5. Diversion of Virginia products that are now exported from Baltimore back to Richmond.
6. Increase in imports--to support increased industry --would help balance Virginia's imports with exports.
7. Generation of additional ocean traffic through all ports on Hampton Roads, as well as Richmond.
8. Increased "awareness" of Virginia's port(s).
9. Preferential freight rates to inland from port of Richmond would result in net increase in State's port trade.
10. Diversion of North Carolina cargoes to "new" Virginia port (Richmond)--that trade normally handled at Morehead City, North Carolina.

Arguments in opposition:

1. Excessive diversion of cargo from Hampton Roads to Richmond with little advantage.
2. The improvement is not necessary to trade progress and/or there would be little effect on such progress.

TABLE VIII (continued)

Arguments in opposition (cont.):

3. Funds could be better invested in improvements to Hampton Roads, where needs still prevail.

4. Excessive additional State expenditures would be required to develop Richmond harbor.

5. Present overland freight carriers would suffer.

6. Would result in fragmentation of port development through diffusion of available State funds.

7. Economic justification "gone" since pipelines now carry petroleum products to Richmond.

8. Division of effort in solicitation of trade between more ports would weaken results of this effort.

9. Channel utilization has never been significant in the past to warrant additional improvement.

10. Containerization concept will render the improved channel obsolete before long.

11. \$40 million cost not realistically high enough to pay for project and maintenance.

general, the improvement. Therefore, a high degree of bias inevitably existed in the response; this was not only expected, but was solicited in hopes of bringing out diverse opinions on the subject. Nevertheless, both proponents and opponents contributed comment to both sides of the issue in many cases, as did particularly those reported to be directly unaffected by the improvement.

To conclude, the objectives of the survey--to obtain opinionated viewpoints--were successfully achieved. Although the survey sampling may have been somewhat limited in scope and the information something less than revolutionary, this phase of the project reconfirmed much of the current feelings. Nevertheless, the feelings were perhaps not very strong, for only three indicated that they planned to actively promote and five to prevent the improvement to the extent they could.¹

VI. A SUMMARY AND SOME CONCLUSIONS--JAMES

RIVER IMPROVEMENT

Since the legislation in 1964 calling for numerous reports and General Assembly review, progress was relatively negligible until late 1966, when organizations preparing the pending reports began releasing statements relative to their findings. December 20, 1966, the joint findings of the

¹This is based on the twenty-four who completed the survey, specifically answering this question. Surely, others not answering the survey nor completing the form (per se) will actively oppose or promote the plan.

Virginia Institute of Marine Science and the State Fisheries Commission were presented to Governor Mills E. Godwin.

Though the Commission refrained from final approval of the improvement--pending establishment of controls it wanted before dredging could begin, Governor Godwin hailed the reports: "I believe the major obstacles have been mounted and a green light has been flashed;"¹ Fisheries Commission Director Milton T. Hickman concurred.² January 18, 1967, the State Highway Commission reported the project would have no adverse effects on any existing or future bridges on the River. The Virginia State Ports Authority, on record as promoting the project, was expected to report favorably, as were the other State bodies called upon by the 1964 Assembly.

C. J. Robin, Norfolk District Chief Engineer, Corps of Army Engineers, reported in January, 1967, that he was not anticipating any action by his office until the project received approval of the General Assembly in 1968. If their action is favorable, he said that he would then attempt to obtain funds to make a new economic evaluation.³

Where did this leave the James River Improvement? According to Governor Godwin in late 1966, the project had a "green light" upon the receipt of the State Fisheries Commission's approval based on the results of the model study and

¹Cited in George M. Kelley, "Studies Open Gate to James River Seaway," The Virginian-Pilot, December 21, 1966, pp. 1, 12.

²Ibid.

³News item in the Ledger-Star, January 18, 1967.

the Virginia Marine Institute Study. Though their conclusions could have been considered irrelevant to the purpose here, all reports soon-to-be-due to the governor were expected to be approving in nature. However, a long line of obscure political maneuvers based on sectional interests managed to hold Richmond's "porthood" status quo for nearly two decades since completion of the "Existing Project" in 1947.

First was the actual recognition of the desire for an increased depth by Congressional approval for a survey in 1954-55--a delay of six to seven years in itself. Next came the long study of the Corps of Engineers, blocked for two years in 1958 by demands to consider the model study question relative to the oyster threat. Though the Norfolk District Corps of Engineers survey was reported to be "ready for typing" in 1958, they did not submit it for review until 1960--not because the model study had assured the safety of the oyster beds, but because the opinions of enough experts had concurred that no threat existed. It was not until 1962 that the Review Report was made public. The Congressional approval of the report was relatively quick but required the approval of Virginia's governor within five years. However, in the meantime, the Virginia General Assembly had stymied the improvement by the law calling for Fisheries Commission approval of oyster-bed dredging. The resultant frustration to Virginia's governors led to several efforts, including the establishment of the conclusive--but relatively ineffective--James River Study Commission report that took through 1963 to complete.

Though legislation subsequent to the "Study Report" removed the veto power from the Fisheries Commission--perhaps a major breakthrough in itself--it also led to the requirement for subsequent reporting and legislation that was in its fourth year of a four-year process at the time of this writing.

The State reports, to be followed by action of the General Assembly, were designed to decide the issue in 1968--once-and-for-all. However, other changes in the past few years completely shattered the original benefit-cost justification for the Federal proposal. The result was a need for a completely new review for economic justification, which will definitely await an affirmative decision by the General Assembly in 1968, according to the Corps of Engineers who will make the evaluation.¹

Thus, it appeared in mid-1967 that the following chronology, with estimates of timing, will be required:

1. A decision by the 1968 Virginia General Assembly to approve or reject the James River dredging concept . . . estimated action date--May, 1968.
2. Assuming an affirmative decision by the Assembly, efforts by Corps of Engineers to obtain funds for a new feasibility study . . . estimated approval date--November, 1968.

¹
Ibid.

3. Assuming funds are provided for a Corps study,
performance of the new feasibility study . . .
estimated completion--one year, or November, 1969.
4. Since the five-year deadline for Virginia governor's
project approval will have expired, the new study
may go through the two years of Federal review and
final approval by Congress (as between 1960 and
1962) . . . estimated approval date--conservatively,
January 1, 1971.
5. Additional State acceptance of Federal proposal?
Barring that, actual construction work--allowing
six months for receipt of bids and issuing of con-
tracts for initial stages . . . estimated work start
date--July 1, 1971.
6. Completion of Project Improvement, based on previous
estimates of five to six years--1976 or 1977--up to
ten years after this writing.

The preceding timetable, subject to scrutiny but attempting conservatism, made claims of obsolescence of a James River channel only thirty-five feet deep less doubtful each day.

A new¹ proposal, which deserves introduction before closing, was presented to Governor Godwin on January 10, 1967,

¹New only to this paper--The Virginian-Pilot of February 1, 1967, described it as a 15-year-old idea. It had been opposed earlier by Richmond because it would hinder progress of ship-ping traffic.

in a letter from the Tidewater Virginia Development Council (TVDC). The TVDC proposal, perhaps the result of recognition of the nearness of the five-year deadline for the State, presented the following points:

1. The Plan would provide unlimited water to political subdivisions between Norfolk and Richmond, population of which would reach three million by the year 2000 (now $1\frac{1}{2}$ million).
2. The Plan would provide an unlimited raw water supply for industry on both sides of the river from Richmond to Norfolk.
3. The Plan would increase by up to ten feet the depth of the James upstream to Richmond, eliminating much of the need for proposed dredging.
4. An additional river crossing would be provided by the Plan, eliminating a ferry now provided.¹

The "Plan" of the TVDC was the construction of a "tidal exclusion dam" across the James near or above the site of Jamestown Island. The Plan would provide a barrier between fresh water above and salt water below the dam, raising the upstream side by the desired level of design. The proposal was presented as one which would pay for itself through water sales, traffic tolls, and presumed Federal sponsorship. Traffic tolls would be from use of a highway across the dam. The letter of pro-

¹ Letter from Fred Duckworth, President, Tidewater Virginia Development Council, to Governor Mills E. Godwin, January 10, 1967.

posal for the dam Plan closed with the statement that:

Richmond is entitled to first class port facilities and with this Plan the facilities for such traffic would be available and should be so.¹

The TVDC also proposed the Plan to the Corps of Army Engineers, urging its inclusion in considerations of future River improvement.² Needless to say, the entire idea was met with mixed reaction. E. B. Pendleton, Jr., House Delegate from Richmond-Henrico County called the dam a new scheme to block the James improvement--"a new body in an old shroud."³ He stated:

For years, our Tidewater neighbors, led by Norfolk interests, have brought forth skeletons, red herrings and every other real or make-believe obstacle that would prevent the dredging of a 35-foot channel to Richmond.⁴

Other reports from Richmond cited that interests there were seeking a quick study of the dam.⁵ One Richmond Chamber of Commerce spokesman urged the Corps of Engineers "to do nothing that will stand in the way . . ." of deepening the channel.⁶ Dr. William J. Hargis, Jr., Virginia Institute of Marine Science said, "Such a dam would create a saline barrier detri-

¹Ibid.

²News item in The Virginian-Pilot, March 4, 1967.

³News item in The Virginian-Pilot, February 28, 1967.

⁴Ibid.

⁵News item in The Virginian-Pilot, March 25, 1967

⁶Mr. John A. Schools, cited in The Virginian-Pilot, March 10, 1967.

mental to the Virginia fishery;"¹ the VIMS would oppose the dam.²

Though the dam Plan may have merit over the long run, it has already touched off debate that may well add several more years to the hypothetical timetable presented on pages 106-107.

¹News item in The Virginian-Pilot, March 23, 1967

²Ibid.

CHAPTER IV

SOME ECONOMIC CONSEQUENCES OF INTRA-STATE RIVALRIES

What was the significance of the Fall Line Blockade as it related to the current proposal to deepen the James River to Richmond? The greatest importance lay in the definite parallelisms between the two subjects, since these served to indicate basic weaknesses in the political processes of the State as they are applied in urgent economic programs--both past and present.

Since the likenesses between the two questions seem to exceed the differences, it served to first dispense with the latter. The primary differences faced by the Fall Line Blockade and the James River Improvement were those of time and detail of physical orientation. The element of time was clearly differentiated in Chapters II and III, the earlier "blockade" era ending about a century before the beginning of rigorous inquiry into the improvement of the James. However, it was clear that time played little significance in changing most of the basic issues involved.

Regarding the geography of the two issues, the earlier "blockade" was lowered upon Hampton Roads by inland interests, centered at Richmond and Petersburg. The current "blockade" has been directed against Richmond by Hampton Roads, essentially a reverse. Nevertheless, the area of involvement remained essentially those transportation routes between the Hampton Roads cities and the Fall Line cities. The only real

change was the modes of transport
roads inland from Hampton Roads
tion channel to Richmond.

The question seemed to be
development be placed--at the river
or toward the hopeful development
the James River downstream from
characteristics throughout. A
crucial question relative to the
Virginia, the scope of even the
unbasic. The really essential
crucial to many walks of public
shipping, economic growth and
should have been asked relative
sectionalism, petty local jealous
sive planning, pay-as-you-go for
misplaced objectives, obsolescence
inter-relationships of these conditions
deep-rooted problems of Virginia
in programs as urgent as the development
of the State.

To exemplify some of the
subjects already studied, a local
the previously mentioned very common
example, the concept of misplaced
Werthenbaker by mention of the fact
Appalachians by means of a canal

with a near-blindness to the needs of Hampton Roads for rapid, effective development of access to the inland. Comparatively, an article in September, 1966, related the squabble taking place in the U. S. Congress between Representative Porter Hardy (Norfolk) and others from Texas, Maryland, and Pennsylvania as to whose port (Norfolk, Houston, Baltimore, or Philadelphia) could lay claim to the number two spot in foreign tonnage.¹ One hoped such legislative opportunity had been better spent in the seeking of funds for worthwhile port improvement appropriation.

We were among the first to enter upon a system of improvement with a view to develop our great and varied resources, but our efforts were misdirected and our means so misapplied that we were among the last to accomplish any great practical result²

The preceding was written in 1856 relative to the Fall Line Blockade, although it may have become the type of news article that will be read fifteen or twenty years from now with respect to the current James River issue.

As for tradition, the Appalachian canal was plagued by the traditions of George Washington's dreams and the denial of federal planning. The traditional reluctance to further James River Improvement has been blinded by belief that Richmond could not handle the demands for facilities required

¹Helen Bentley, "Norfolk's Claim as No. 2 Port Vigorously Upheld by Hardy," Ledger-Star, September 12, 1966.

²Wortenbaker, op. cit., p. 176, citing the (Norfolk) Argus, March 14, 1856.

by the improvement. The firmly "entrenched faith in pay-as-you-go financing,"¹ that has hindered Virginia's development of good education at all levels, also asked: Where would the State get funds to develop the Richmond harbor and the banks of the James? An excellent analogy to the "who-gets-the-port-funds" question appeared in a recent editorial on the competition for water resources in the Hampton Roads area. Inter-city disputes over water rights had grown so vehement that by September, 1966, the basic urgency of water for existence--like the source of many old mountain feuds--had been entirely lost in the squabble.² It appeared that in the feud to retain the handling of a few ships full of commerce--bound for Richmond anyway, sight had been lost of the possibility of making available potentially needed industrial sites to the apparent long-range good of the State-as-a-whole. Sight also was lost of the long-range good that could come to Hampton Roads through increased exposure of industry-oriented port commerce. These elements paralleled Wertenbaker's citation of the 1856 newspaper commentary, relative to both misplaced objectives and traditional concepts.

The traditional feuding between Hampton Roads and Richmond in both eras was so inter-related with the concepts

¹Editorial in the Ledger-Star, October 6, 1966.

²"The Competition for Water" (an editorial), Ledger-Star. September 12, 1966.

of sectionalism and petty local jealousies as to be nearly unseparable, though their extreme prevalence deserved descriptive use here. Herein, one has visualized the waste of years through traditional hesitancy toward economic change, economic progress!

Perhaps the most significant failing of Virginia always has lain in the traditional refusal of comprehensive planning on a Statewide basis. It has been as if in rejecting National planning in the eighteenth century Virginian legislators had rejected--for all time--any form of planning and assistance in seeking intra-State cooperation for Statewide progress, thereby leaving decisions--or lack of decisions--to the degeneration of jealous local entities. In reference to earlier failings in internal improvements of Virginia, Goodrich wrote that a significant part of the explanation . . .

. . . lies in the inherent contradiction between a system of orderly grants-in-aid to local enterprise and the concentration of funds and effort required for the accomplishment of a major developmental work . . .¹

Comparatively, State Senator Henry E. Howell, Jr., (Norfolk) said in May, 1967:

Virginia has suffered because its governmental leaders for generations have refused to engage in any long-term planning. If we continue to be uneducated with respect to the essentiality of planning for the future, the results are going to be disastrous to the welfare of our generation and future generations.²

Had concepts of long-range, comprehensive planning prevailed

¹Goodrich, op. cit., p. 101.

²Cited in The Virginian-Pilot, May 7, 1967.

two decades before this writing (i.e., in the 1940's) a decision by the State on the James River Improvement--either favorable or unfavorable--would have been a rather automatic one, many years old. But without plan-oriented criteria for such decision-making, Virginians have failed to move in any direction.

In the meantime, other states have embarked on major long-range port development programs. The New York Marine and Aviation Department was reported in 1961 to be conducting an economic survey of the port potential to the year 2000 to provide a basis for long-range comprehensive planning. Philadelphia was under a master plan for port development in 1961. Baltimore reportedly was underway with a far-reaching program for harbor development for the movement of both general and specialized cargoes.¹ However, in Virginia not only were the cities of Hampton Roads--hunting for industrial space themselves--successfully "blockading" the James River Improvement, but the Hampton Roads cities were seeking to block improvements of each other in such areas as obtaining State funds for development of container port facilities and disputing the "rights" of one of the port cities to win the bid as port of call by a containership syndicate over the choice of another location within the area.² In the questions

¹Smith, Amundsen, and Bentley, op. cit., pp. 124, 138, 60.

²News items in The Virginian-Pilot, February 2, 1967; February 4, 1967; February 7, 1967; and Ledger-Star, February 3, 1967; February 7, 1967; February 10, 1967.

of port development, metropolitan areas of Virginia seemed to leave a great deal of room for improvement. It appeared to this writer that the answer may lie in the strengthening of the "authority" of the Virginia State Ports Authority.

One of the prime detrimental outcomes of such policy--or lack of it--has been obsolescence of huge, costly programs prior to their completion. Efforts to continue the James River and Kanawha Canal were sustained deep into this "period of obsolescence," taking a heavy toll on the net improvement of transportation facilities within the State.¹

To conclude, the preceding paragraph precisely described the fast approaching status of the James River Project Improvement Through the ravages of sectionalism and petty jealousies and the lack of comprehensive long-range planning deep-seated in the traditions of colonial times, the obsolescence of the James Improvement has grown close at hand. It would do well for Virginia and its cities to recognize this, rise above the array of misconceptions bred in disunity, and reach a degree of reasonable expediency with regards to the improvement and other future important issues.

¹Goodrich, op. cit., p. 100.

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APPENDIX

EXHIBIT 1

124

1717 Harmon Street, #202
Norfolk, Virginia 23518
January 23, 1967

(inside address)

Dear Sir:

Attached is a survey form, the information for which I am soliciting for use in a thesis for a Master of Arts degree in Economics at Drake University, Des Moines, Iowa. The thesis is intended to determine if parallelisms exist between the proposed James River Channel Deepening Project and the alleged detriment of Virginia's transportation growth by inland-oriented legislatures prior to 1860.

Though this information is solicited for my immediate use, it would appear that the results could lead to much greater benefit for those more directly operating within the transportation fields. Therefore, in the anticipation that this study might contribute something of value to the questions surrounding the James River Project, I sincerely hope you will take the time necessary for completing and returning the form.

You may feel some question(s) is not related to you or your interests; if so, please place an "X" through such questions to so indicate. The text of the paper is not intended to relate to you or your firm's name (that is, general reference will be made to industries or types of organizations rather than to organization names).

Opinions are anticipated in this survey. This is why a large number of diversified organizations concerned with the subject are being contacted. Where questions suggest, inclusion of any factual information on which your opinions are based would be helpful. If space provided is inadequate, use the back of the form or additional sheets to expand your information if you wish.

I will not ask "please take a few seconds of your time..."; you may feel that your interest in these questions calls for some research or contemplation. Such interest on your part would be mutually valuable. However, I have tried to make the questions general enough, based on recent news media information, that perhaps you are prepared to answer with a minimum of effort.

As always, time presents limitations on all such projects. At the risk of appearing over-anxious, may I request that you or one of your qualified personnel attempt to complete and return the form no later than January 31?

Your concern for this subject and generosity with your time in responding to this inquiry will be most appreciated. Thank you.

S/: Robert J. Thompson

JAMES RIVER DEVELOPMENT PROJECT --- SURVEY

EXHIBIT II

1. YOUR NAME _____ YOUR POSITION _____
2. YOUR COMPANY'S NAME _____ COMPANY'S ADDRESS _____
3. NATURE OF YOUR COMPANY'S BUSINESS _____
4. TERRITORY (or jurisdiction) OF YOUR COMPANY _____
5. ARE YOU FAMILIAR WITH THE PROPOSED DEEPENING OF THE JAMES RIVER TO FACILITATE RIVER INDUSTRIALIZATION AND TO IMPROVE RICHMOND AS AN INLAND PORT?
YES _____ NO _____ TO WHAT EXTENT?

NEWSPAPER INFORMATION _____
 DISCUSSIONS _____
 WORK-RELATED STUDIES _____
 NONWORK-RELATED STUDY _____
 OTHER _____

6. Anticipated effect of the James River Project on your business:
 Improve it _____ No Effect _____ Hurt it _____
 Please explain your answer specifically:

7. What long-range effect do you expect the project will have on the port(s) of Hampton Roads?
 Improve it _____ No Effect _____ Hurt it _____
 Please explain your answer specifically:

8. What long-range effect do you expect the project will have on the overall import-export trade of Virginia?
 Improve it _____ No Effect _____ Hurt it _____
 Please explain your answer specifically:

9. Mark the answer(s) that indicate what you think will be the long-range outstanding feature(s) of spending the funds specified for the James River improvement (about \$40 million):
 _____ a. Necessary for the advancement of Virginia's trade.
 _____ b. Will benefit Richmond and Virginia without effecting Hampton Roads.
 _____ c. Will benefit Richmond and Virginia at the expense (loss) of Hampton Roads.
 _____ d. Will benefit Richmond and the James River development, but at the expense of Hampton Roads and Virginia.
 _____ e. Would better meet the needs of Virginia by placing the investment in further improvement of Hampton Roads instead of the James River.
 _____ f. Other (or expansion of above): _____

JAMES RIVER DEVELOPMENT SURVEY
 R. J. THOMPSON THESIS
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EXHIBIT II
 (CONT.)

10. Are you familiar with the history of transportation in Virginia, particularly that conflict that Thomas J. Wertenbaker describes as "The Fall-Line Blockade" in Norfolk: Historic Southern Port?* This "blockade" was alleged to be the retardation of the development of railroads between Hampton Roads and the interior of Virginia prior to 1860, based on "trade rivalry" from the interior cities of Virginia (all according to Wertenbaker).

Yes, I do know of the conflict _____

No, I have not heard of it _____

11. Do you feel there is a correlation between early efforts to develop inland Virginia ports (i. e., Wertenbaker's "Blockade") and the proposed James River Channel Improvement relative to long-range growth of Virginia's maritime trade?

No, I see no correlation _____

Yes, there is definite correlation _____ If "yes" is your answer, please describe in what way:

12. Do you (or does your organization) plan to actively promote (yes____no____) or try to prevent (yes____no____) the James River Project? In what way?

13. Other comments: _____

*Wertenbaker's book is available from the Norfolk Public Library at \$1.00.

EXHIBIT III

1717 Harmon Street, #202
Norfolk, Virginia 23518
March 13, 1967

Dear Sir:

Reviewing the results of my current survey on the James River Proposal, I regret to find that your form is not among those returned. Perhaps the questionnaire did not reach you.

Your participation and interest in this survey is considered most important; your opinions on the subject would be valuable. Please review the attached material and forward the form at your earliest convenience (if possible, by March 31). Do not feel you must answer questions of a confidential nature.

Thank you.

Sincerely,

Robert J. Thompson